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(54) Title: HUMAN GENES AND GENE EXPRESSION PRODUCTS II

#### (57) Abstract

This invention relates to novel human polynucleotides and variants thereof, their encoded polypeptides and variants thereof, to genes corresponding to these polynucleotides and to proteins expressed by the genes. The invention also relates to diagnostic and therapeutic agents employing such novel human polynucleotides, their corresponding genes or gene products, e.g., these genes and proteins, including probes, antisense constructs, and antibodies.

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## **HUMAN GENES AND GENE EXPRESSION PRODUCTS II**

## Field of the Invention

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The present invention relates to novel polynucleotides, particularly to novel polynucleotides of human origin that are expressed in a selected cell type, are differentially expressed in one cell type relative to another cell type (e.g., in cancerous cells, or in cells of a specific tissue origin) and/or share homology to polynucleotides encoding a gene product having an identified functional domain and/or activity.

## 10 Background of the Invention

Identification of novel polynucleotides, particularly those that encode an expressed gene product, is important in the advancement of drug discovery, diagnostic technologies, and the understanding of the progression and nature of complex diseases such as cancer. Identification of genes expressed in different cell types isolated from sources that differ in disease state or stage, developmental stage, exposure to various environmental factors, the tissue of origin, the species from which the tissue was isolated, and the like is key to identifying the genetic factors that are responsible for the phenotypes associated with these various differences

This invention provides novel human polynucleotides, the polypeptides encoded by these polynucleotides, and the genes and proteins corresponding to these novel polynucleotides.

#### Summary of the Invention

This invention relates to novel human polynucleotides and variants thereof, their encoded polypeptides and variants thereof, to genes corresponding to these polynucleotides and to proteins expressed by the genes. The invention also relates to diagnostic and therapeutic agents employing such novel human polynucleotides, their corresponding genes or gene products, *e.g.*, these genes and proteins, including probes, antisense constructs, and antibodies. The polynucleotides of the invention correspond to a polynucleotide comprising the sequence information of at least one of SEQ ID NOS: 1-3544, 3546-4510, 4512-4725, 4727-4748, and 4750-5252, which for convenience sake is referred to herein as "SEQ ID NOS:1-5252."

Accordingly, in one embodiment, the present invention features a library of polynucleotides, the library comprising the sequence information of at least one of "SEQ ID NOS:1-5252". In related aspects, the invention features a library provided on a nucleic acid array, or in a computer-readable format.

5 In one embodiment, the library is comprises a differentially expressed polynucleotide comprising a sequence selected from one of the differentially expressed polynucleotides disclosed herein. In specific related embodiments, the library comprises: 1) a polynucleotide that is differentially expressed in a human breast cancer cell, where the polynucleotide comprises a sequence selected from the group consisting of SEQ ID NOS:15, 36, 44, 45, 89, 146, 154, 159, 165, 172, 174, 183, 203, 261, 364, 366, 387, 419, 10 420, 496, 503, 510, 512, 529, 552, 560, 564, 570, 590, 606, 644, 646, 693, 707, 711, 726, 746, 754, 756, 875, 902, 921, 942, 990, 1095, 1104, 1122, 1131, 1142, 1170, 1184, 1205, 1286, 1289, 1354, 1387, 1435, 1535, 1751, 1764, 1777, 1795, 1860, 1869, 1882, 1890, 1915, 1933, 1934, 1979, 1980, 2007, 2023, 2040, 2059, 2223, 2245, 2300, 2325, 2409, 2462, 2488, 2486, and 2492; 2) a polynucleotide differentially expressed in a human colon 15 cancer cell, where the polynucleotide comprises a sequence selected from the group consisting of SEQ ID NOS: , 33, 65, 228, 250, 252, 253, 280, 282, 355, 370, 387, 443, 460, 491, 545, 560, 581, 603, 680, 693, 703, 704, 716, 726, 746, 752, 753, 1095, 1104, 1205, 1241, 1264, 1354, 1387, 1401, 1442, 1514, 1734, 1742, 1780, 1851, 1899, 1915, 1954, 2024, 2066, 2262, and 2325; 3) a polynucleotide differentially expressed in a human lung 20 cancer cell, where the polynucleotide comprises a sequence selected from the group consisting of SEQ ID NOS: 10, 54, 65, 171, 174, , 203, 252, 253, 254, , 285, 419, 420, 466, 491, 525, 526, 552, 571, 574, 590, 693, 700, 726, 742, 746, 861, 922, 990, 1088, 1288, 1355, 1417, 1422, 1444, 1454, 1570, 1597, 1979, 2007, 2024, 2034, 2038, 2126, and 2245; 4) a polynucleotide differentially expressed in growth factor-treated human microvascular 25 endothelial cells (HMEC) relative to untreated HMEC, where the polynucleotide comprises a sequence selected from the group consisting of SEQ ID NOS:648, 1899, and 648; or 5) polynucleotides that are differentially expressed across multiple libraries, where the polynucleotide comprises a sequence selected from the group consisting of SEQ ID NOS: 65, 174, 203, 252, 253, 387, 419, 420, 491, 552, 560, 581, 590, 648, 693, 726, 746, 990, 30 1095, 1124, 1205, 1354, 1387, 1780, 1899, 1915, 1979, 2007, 2024, 2245, and 2325,

In another aspect, the invention features an isolated polynucleotide comprising a nucleotide sequence having at least 90% sequence identity to an identifying sequence of "SEQ ID NOS:1-5252" or a degenerate variant thereof. In related aspects, the invention features recombinant host cells and vectors comprising the polynucleotides of the invention, as well as isolated polypeptides encoded by the polynucleotides of the invention and antibodies that specifically bind such polypeptides.

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In one embodiment, the invention features an isolated polynucleotide comprising a sequence encoding a polypeptide of a protein family or having a functional domain selected from the group consisting of: 4 transmembrane segments integral membrane proteins, 7 transmembrane receptors (rhodopsin family or secretin family), eukaryotic aspartyl proteases, ATPases associated with various cellular activities (AAA), Bcl-2, cyclins, DEAD box protein family, DEAD/H helicase protein family, MAP kinase kinase protein family, novel 3'5'-cyclic nucleotide phosphodiesterases, protein kinases, ras protein family. G-protein alpha subunit, phorbol esters/diacylglycerol binding proteins, protein kinase, trypsin, protein tyrosine phosphatase, wnt family of developmental signaling proteins, WW/rsp5/WWP domain containing proteins, Ank repeat, basic region plus leucine zipper domain, bromodomain, eukaryotic thiol (cysteine) protease active site, EF-hand, ETS domain, type II fibronectin collagen binding domain, thioredoxin, homeobox domain, TNFR/NGFR family cysteine-rich region, WD domain/G-beta repeats, zinc finger (C2H2 type), zinc finger (CCHC class), and zinc finger (C3HC4 type). In a specific related embodiment, the invention features a polynucleotide comprising a sequence of one of the SEQ ID NOS: listed in Table 3 or Table 20.

In another aspect, the invention features a method of detecting differentially expressed genes correlated with a cancerous state of a mammalian cell, where the method comprises the step of detecting at least one differentially expressed gene product in a test sample derived from a cell suspected of being cancerous, where the gene product is encoded by a gene corresponding to a sequence of at least one of the differentially expressed polynucleotides disclosed herein. Detection of the differentially expressed gene product is correlated with a cancerous state of the cell from which the test sample was derived. In one embodiment, the detecting is by hybridization of the test sample to a

reference array, wherein the reference array comprises an identifying sequence of at least one of the differentially expressed polynucleotides disclosed herein.

In one embodiment of the method of the invention, the cell is a breast tissue derived cell, and the differentially expressed gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS:15, 36, 44, 45, 89, 146, 154, 159, 165, 172, 174, 183, 203, 261, 364, 366, 387, 419, 420, 496, 503, 510, 512, 529, 552, 560, 564, 570, 590, 606, 644, 646, 693, 707, 711, 726, 746, 754, 756, 875, 902, 921, 942, 990, 1095, 1104, 1122, 1131, 1142, 1170, 1184, 1205, 1286, 1289, 1354, 1387, 1435, 1535, 1751, 1764, 1777, 1795, 1860, 1869, 1882, 1890, 1915, 1933, 1934, 1979, 1980, 2007, 2023, 2040, 2059, 2223, 2245, 2300, 2325, 2409, 2462, 2486 2488, and 2492.

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In another embodiment of the method of the invention, the cell is a colon tissue derived cell, and differentially expressed gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS: 65, 228, 252, 253, 280, 355, 491, 581, 603, 680, 693, 716, 726, 746, 752, 753, 1241, 1264, 1401, 1442, 1514, 1851, 1915, 2024, 2066, 33, 250, 282, 370, 387, 443, 460, 545, 560, 703, 704, 1095, 1104, 1205, 1354, 1387, 1734, 1742, 1780, 1899, 1954, 2262, and 2325.

In yet another embodiment of the method of the invention, the cell is a lung tissue derived cell, and differentially expressed gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS:10, 54, 65, 171, 174, 203, 252, 253, 254, 285, 419, 420, 466, 491, 525, 526, 552, 571, 574, 590, 693, 700, 726, 742, 746, 861, 922, 990, 1088, 1288, 1355, 1417, 1422, 1444, 1454, 1570, 1597, 1979, 2007, 2024, 2034, 2038, 2126, and 2245.

In another embodiment, the cell is any of a lung, breast, or colon cell and the differentially expressed gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS:648 and 1899.

In still another embodiment, the cell is any of a breast, colon, or lung cell and the differentially expressed gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS: 65, 174, 203, 252, 253, 387, 419, 420, 491, 552, 560, 581, 590, 648, 693, 726, 746, 990, 1095, 1124, 1205, 1354, 1387, , 1780, 1899, 1915, 1979, 2007, 2024, 2245, and 2325.

Other aspects and embodiments of the invention will be readily apparent to the ordinarily skilled artisan upon reading the description provided herein.

## Detailed Description of the Invention

The invention relates to polynucleotides comprising the disclosed nucleotide sequences, to full length cDNA, mRNA and genes corresponding to these sequences, and to polypeptides and proteins encoded by these polynucleotides and genes.

Also included are polynucleotides that encode polypeptides and proteins encoded by the polynucleotides of the Sequence Listing. The various polynucleotides that can encode these polypeptides and proteins differ because of the degeneracy of the genetic code, in that most amino acids are encoded by more than one triplet codon. The identity of such codons is well-known in this art, and this information can be used for the construction of the polynucleotides within the scope of the invention.

Polynucleotides encoding polypeptides and proteins that are variants of the polypeptides and proteins encoded by the polynucleotides and related cDNA and genes are also within the scope of the invention. The variants differ from wild type protein in having one or more amino acid substitutions that either enhance, add, or diminish a biological activity of the wild type protein. Once the amino acid change is selected, a polynucleotide encoding that variant is constructed according to the invention.

The following detailed description describes the polynucleotide compositions encompassed by the invention, methods for obtaining cDNA or genomic DNA encoding a full-length gene product, expression of these polynucleotides and genes, identification of structural motifs of the polynucleotides and genes, identification of the function of a gene product encoded by a gene corresponding to a polynucleotide of the invention, use of the provided polynucleotides as probes and in mapping and in tissue profiling, use of the corresponding polypeptides and other gene products to raise antibodies, and use of the polynucleotides and their encoded gene products for therapeutic and diagnostic purposes.

#### I. Polynucleotide Compositions

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The scope of the invention with respect to polynucleotide compositions includes, but is not necessarily limited to, polynucleotides having a sequence set forth in any one of

"SEQ ID NOS:1-5252"; polynucleotides obtained from the biological materials described herein or other biological sources (particularly human sources) by hybridization under stringent conditions (particularly conditions of high stringency); genes corresponding to the provided polynucleotides; variants of the provided polynucleotides and their corresponding genes, particularly those variants that retain a biological activity of the encoded gene product (e.g., a biological activity ascribed to a gene product corresponding to the provided polynucleotides as a result of the assignment of the gene product to a protein family(ies) and/or identification of a functional domain present in the gene product). Other nucleic acid compositions contemplated by and within the scope of the present invention will be readily apparent to one of ordinary skill in the art when provided with the disclosure here.

The invention features polynucleotides that are expressed in cells of human tissue, specifically human colon, breast, and/or lung tissue. Novel nucleic acid compositions of the invention of particular interest comprise a sequence set forth in any one of "SEQ ID NOS:1-5252" or an identifying sequence thereof. An "identifying sequence" is a contiguous sequence of residues at least about 10 nt to about 20 nt in length, usually at least about 50 nt to about 100 nt in length, that uniquely identifies a polynucleotide sequence, e.g., exhibits less than 90%, usually less than about 80% to about 85% sequence identity to any contiguous nucleotide sequence of more than about 20 nt. Thus, the subject novel nucleic acid compositions include full length cDNAs or mRNAs that encompass an identifying sequence of contiguous nucleotides from any one of "SEQ ID NOS:1-5252."

The polynucleotides of the invention also include polynucleotides having sequence similarity or sequence identity. Nucleic acids having sequence similarity are detected by hybridization under low stringency conditions, for example, at 50°C and 10XSSC (0.9 M saline/0.09 M sodium citrate) and remain bound when subjected to washing at 55°C in 1XSSC. Sequence identity can be determined by hybridization under stringent conditions, for example, at 50°C or higher and 0.1XSSC (9 mM saline/0.9 mM sodium citrate). Hybridization methods and conditions are well known in the art, see, e.g., U.S. Patent No. 5,707,829. Nucleic acids that are substantially identical to the provided polynucleotide sequences, e.g. allelic variants, genetically altered versions of the gene, etc., bind to the provided polynucleotide sequences ("SEQ ID NOS:1-5252") under stringent hybridization conditions. By using probes, particularly labeled probes of DNA sequences, one can

isolate homologous or related genes. The source of homologous genes can be any species, e.g. primate species, particularly human; rodents, such as rats and mice; canines, felines, bovines, ovines, equines, yeast, nematodes, etc.

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Preferably, hybridization is performed using at least 15 contiguous nucleotides of at least one of "SEQ ID NOS:1-5252." That is, when at least 15 contiguous nucleotides of one of the disclosed SEQ ID NOs. is used as a probe, the probe will preferentially hybridize with a gene or mRNA (of the biological material) comprising the complementary sequence, allowing the identification and retrieval of the nucleic acids of the biological material that uniquely hybridize to the selected probe. Probes from more than one SEQ ID NO. will hybridize with the same gene or mRNA if the cDNA from which they were derived corresponds to one mRNA. Probes of more than 15 nucleotides can be used, but 15 nucleotides represents enough sequence for unique identification.

The polynucleotides of the invention also include naturally occurring variants of the nucleotide sequences (e.g., degenerate variants, allelic variants, etc.). Variants of the polynucleotides of the invention are identified by hybridization of putative variants with nucleotide sequences disclosed herein, preferably by hybridization under stringent conditions. For example, by using appropriate wash conditions, variants of the polynucleotides of the invention can be identified where the allelic variant exhibits at most about 25-30% base pair mismatches relative to the selected polynucleotide probe. In general, allelic variants contain 15-25% base pair mismatches, and can contain as little as even 5-15%, or 2-5%, or 1-2% base pair mismatches, as well as a single base-pair mismatch.

The invention also encompasses homologs corresponding to the polynucleotides of "SEQ ID NOS:1-5252", where the source of homologous genes can be any mammalian species, *e.g.*, primate species, particularly human; rodents, such as rats; canines, felines, bovines, ovines, equines, yeast, nematodes, etc. Between mammalian species, *e.g.*, human and mouse, homologs have substantial sequence similarity, *e.g.*, at least 75% sequence identity, usually at least 90%, more usually at least 95% between nucleotide sequences. Sequence similarity is calculated based on a reference sequence, which may be a subset of a larger sequence, such as a conserved motif, coding region, flanking region, *etc*. A reference sequence will usually be at least about 18 contiguous nt long, more usually at

least about 30 nt long, and may extend to the complete sequence that is being compared. Algorithms for sequence analysis are known in the art, such as BLAST, described in Altschul et al., J. Mol. Biol. (1990) 215:403-10.

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In general, variants of the invention have a sequence identity greater than at least about 65%, preferably at least about 75%, more preferably at least about 85%, and can be greater than at least about 90% or more as determined by the Smith-Waterman homology search algorithm as implemented in MPSRCH program (Oxford Molecular). For the purposes of this invention, a preferred method of calculating percent identity is the Smith-Waterman algorithm, using the following. Global DNA sequence identity must be greater than 65% as determined by the Smith-Waterman homology search algorithm as implemented in MPSRCH program (Oxford Molecular) using an affine gap search with the following search parameters: gap open penalty, 12; and gap extension penalty, 1.

The subject nucleic acids can be cDNAs or genomic DNAs, as well as fragments thereof, particularly fragments that encode a biologically active gene product and/or are useful in the methods disclosed herein (e.g., in diagnosis, as a unique identifier of a differentially expressed gene of interest, etc.). The term "cDNA" as used herein is intended to include all nucleic acids that share the arrangement of sequence elements found in native mature mRNA species, where sequence elements are exons and 3' and 5' non-coding regions. Normally mRNA species have contiguous exons, with the intervening introns, when present, being removed by nuclear RNA splicing, to create a continuous open reading frame encoding a polypeptide of the invention.

A genomic sequence of interest comprises the nucleic acid present between the initiation codon and the stop codon, as defined in the listed sequences, including all of the introns that are normally present in a native chromosome. It can further include the 3' and 5' untranslated regions found in the mature mRNA. It can further include specific transcriptional and translational regulatory sequences, such as promoters, enhancers, etc., including about 1 kb, but possibly more, of flanking genomic DNA at either the 5' and 3' end of the transcribed region. The genomic DNA can be isolated as a fragment of 100 kbp or smaller; and substantially free of flanking chromosomal sequence. The genomic DNA flanking the coding region, either 3' and 5', or internal regulatory sequences as sometimes

found in introns, contains sequences required for proper tissue, stage-specific, or diseasestate specific expression.

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The nucleic acid compositions of the subject invention can encode all or a part of the subject polypeptides. Double or single stranded fragments can be obtained from the DNA sequence by chemically synthesizing oligonucleotides in accordance with conventional methods, by restriction enzyme digestion, by PCR amplification, *etc*. Isolated polynucleotides and polynucleotide fragments of the invention comprise at least about 10, about 15, about 20, about 35, about 50, about 100, about 150 to about 200, about 250 to about 300, or about 350 contiguous nucleotides selected from the polynucleotide sequences as shown in "SEQ ID NOS:1-5252." For the most part, fragments will be of at least 15 nt, usually at least 18 nt or 25 nt, and up to at least about 50 contiguous nt in length or more. In a preferred embodiment, the polynucleotide molecules comprise a contiguous sequence of at least twelve nucleotides selected from the group consisting of the polynucleotides shown in "SEQ ID NOS:1-5252."

Probes specific to the polynucleotides of the invention can be generated using the polynucleotide sequences disclosed in "SEQ ID NOS:1-5252." The probes are preferably at least about 12, 15, 16, 18, 20, 22, 24, or 25 nucleotide fragment of a corresponding contiguous sequence of "SEQ ID NOS:1-5252", and can be less than 2, 1, 0.5, 0.1, or 0.05 kb in length. The probes can be synthesized chemically or can be generated from longer polynucleotides using restriction enzymes. The probes can be labeled, for example, with a radioactive, biotinylated, or fluorescent tag. Preferably, probes are designed based upon an identifying sequence of a polynucleotide of one of "SEQ ID NOS:1-5252." More preferably, probes are designed based on a contiguous sequence of one of the subject polynucleotides that remain unmasked following application of a masking program for masking low complexity (e.g., XBLAST) to the sequence., i.e., one would select an unmasked region, as indicated by the polynucleotides outside the poly-n stretches of the masked sequence produced by the masking program.

The polynucleotides of the subject invention are isolated and obtained in substantial purity, generally as other than an intact chromosome. Usually, the polynucleotides, either as DNA or RNA, will be obtained substantially free of other naturally-occurring nucleic acid sequences, generally being at least about 50%, usually at least about 90% pure and are

typically "recombinant", e.g., flanked by one or more nucleotides with which it is not normally associated on a naturally occurring chromosome.

The polynucleotides of the invention can be provided as a linear molecule or within a circular molecule. They can be provided within autonomously replicating molecules (vectors) or within molecules without replication sequences. They can be regulated by their own or by other regulatory sequences, as is known in the art. The polynucleotides of the invention can be introduced into suitable host cells using a variety of techniques which are available in the art, such as transferrin polycation-mediated DNA transfer, transfection with naked or encapsulated nucleic acids, liposome-mediated DNA transfer, intracellular transportation of DNA-coated latex beads, protoplast fusion, viral infection, electroporation, gene gun, calcium phosphate-mediated transfection, and the like.

The subject nucleic acid compositions can be used to, for example, produce polypeptides, as probes for the detection of mRNA of the invention in biological samples (e.g., extracts of human cells) to generate additional copies of the polynucleotides, to generate ribozymes or antisense oligonucleotides, and as single stranded DNA probes or as triple-strand forming oligonucleotides. The probes described herein can be used to, for example, determine the presence or absence of the polynucleotide sequences as shown in "SEQ ID NOS:1-5252" or variants thereof in a sample. These and other uses are described in more detail below.

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## <u>Use of Polynucleotides to Obtain Full-Length cDNA and Full-Length Human Gene and Promoter Region</u>

Full-length cDNA molecules comprising the disclosed polynucleotides are obtained as follows. A polynucleotide having a sequence of one of "SEQ ID NOS:1-5252", or a portion thereof comprising at least 12, 15, 18, or 20 nucleotides, is used as a hybridization probe to detect hybridizing members of a cDNA library using probe design methods, cloning methods, and clone selection techniques such as those described in U.S. Patent No. 5,654,173. Libraries of cDNA are made from selected tissues, such as normal or tumor tissue, or from tissues of a mammal treated with, for example, a pharmaceutical agent. Preferably, the tissue is the same as the tissue from which the polynucleotides of the invention were isolated, as both the polynucleotides described herein and the cDNA

represent expressed genes. Most preferably, the cDNA library is made from the biological material described herein in the Examples. Alternatively, many cDNA libraries are available commercially. (Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual, 2nd Ed.*, (1989) Cold Spring Harbor Press, Cold Spring Harbor, NY). The choice of cell type for library construction can be made after the identity of the protein encoded by the gene corresponding to the polynucleotide of the invention is known. This will indicate which tissue and cell types are likely to express the related gene, and thus represent a suitable source for the mRNA for generating the cDNA. Where the provided polynucleotides are isolated from cDNA libraries, the libraries are prepared from mRNA of human colon cells, more preferably, human colon cancer cells, even more preferably, from a highly metastatic colon cell, Km12L4-A.

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Techniques for producing and probing nucleic acid sequence libraries are described, for example, in Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual, 2nd Ed.*, (1989) Cold Spring Harbor Press, Cold Spring Harbor, NY. The cDNA can be prepared by using primers based on sequence from "SEQ ID NOS:1-5252." In one embodiment, the cDNA library can be made from only poly-adenylated mRNA. Thus, poly-T primers can be used to prepare cDNA from the mRNA.

Members of the library that are larger than the provided polynucleotides, and preferably that encompass the complete coding sequence of the native message, are obtained. In order to confirm that the entire cDNA has been obtained, RNA protection experiments are performed as follows. Hybridization of a full-length cDNA to an mRNA will protect the RNA from RNase degradation. If the cDNA is not full length, then the portions of the mRNA that are not hybridized will be subject to RNase degradation. This is assayed, as is known in the art, by changes in electrophoretic mobility on polyacrylamide gels, or by detection of released monoribonucleotides. Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual, 2nd Ed.*, (1989) Cold Spring Harbor Press, Cold Spring Harbor, NY. In order to obtain additional sequences 5' to the end of a partial cDNA, 5' RACE (*PCR Protocols: A Guide to Methods and Applications*, (1990) Academic Press, Inc.) is performed.

Genomic DNA is isolated using the provided polynucleotides in a manner similar to the isolation of full-length cDNAs. Briefly, the provided polynucleotides, or portions

thereof, are used as probes to libraries of genomic DNA. Preferably, the library is obtained from the cell type that was used to generate the polynucleotides of the invention, but this is not essential. Most preferably, the genomic DNA is obtained from the biological material described herein in the Examples. Such libraries can be in vectors suitable for carrying large segments of a genome, such as P1 or YAC, as described in detail in Sambrook *et al.*, 9.4-9.30. In addition, genomic sequences can be isolated from human BAC libraries, which are commercially available from Research Genetics, Inc., Huntville, Alabama, USA, for example. In order to obtain additional 5' or 3' sequences, chromosome walking is performed, as described in Sambrook *et al.*, such that adjacent and overlapping fragments of genomic DNA are isolated. These are mapped and pieced together, as is known in the art, using restriction digestion enzymes and DNA ligase.

Using the polynucleotide sequences of the invention, corresponding full-length genes can be isolated using both classical and PCR methods to construct and probe cDNA libraries. Using either method, Northern blots, preferably, are performed on a number of cell types to determine which cell lines express the gene of interest at the highest level. Classical methods of constructing cDNA libraries are taught in Sambrook *et al.*, *supra*. With these methods, cDNA can be produced from mRNA and inserted into viral or expression vectors. Typically, libraries of mRNA comprising poly(A) tails can be produced with poly(T) primers. Similarly, cDNA libraries can be produced using the instant sequences as primers.

PCR methods are used to amplify the members of a cDNA library that comprise the desired insert. In this case, the desired insert will contain sequence from the full length cDNA that corresponds to the instant polynucleotides. Such PCR methods include gene trapping and RACE methods. Gene trapping entails inserting a member of a cDNA library into a vector. The vector then is denatured to produce single stranded molecules. Next, a substrate-bound probe, such a biotinylated oligo, is used to trap cDNA inserts of interest. Biotinylated probes can be linked to an avidin-bound solid substrate. PCR methods can be used to amplify the trapped cDNA. To trap sequences corresponding to the full length genes, the labeled probe sequence is based on the polynucleotide sequences of the invention. Random primers or primers specific to the library vector can be used to amplify the trapped cDNA. Such gene trapping techniques are described in Gruber *et al.*, WO

95/04745 and Gruber *et al.*, U.S. Pat. No. 5,500,356. Kits are commercially available to perform gene trapping experiments from, for example, Life Technologies, Gaithersburg, Maryland, USA.

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"Rapid amplification of cDNA ends," or RACE, is a PCR method of amplifying cDNAs from a number of different RNAs. The cDNAs are ligated to an oligonucleotide linker, and amplified by PCR using two primers. One primer is based on sequence from the instant polynucleotides, for which full length sequence is desired, and a second primer comprises sequence that hybridizes to the oligonucleotide linker to amplify the cDNA. A description of this methods is reported in WO 97/19110. In preferred embodiments of RACE, a common primer is designed to anneal to an arbitrary adaptor sequence ligated to cDNA ends (Apte and Siebert, *Biotechniques* (1993) 15:890-893; Edwards et al., Nuc. Acids Res. (1991) 19:5227-5232). When a single gene-specific RACE primer is paired with the common primer, preferential amplification of sequences between the single gene specific primer and the common primer occurs. Commercial cDNA pools modified for use in RACE are available.

Another PCR-based method generates full-length cDNA library with anchored ends without needing specific knowledge of the cDNA sequence. This method is described in WO 96/40998.

The promoter region of a gene generally is located 5' to the initiation site for RNA polymerase II. Hundreds of promoter regions contain the "TATA" box, a sequence such as TATTA or TATAA, which is sensitive to mutations. The promoter region can be obtained by performing 5' RACE using a primer from the coding region of the gene. Alternatively, the cDNA can be used as a probe for the genomic sequence, and the region 5' to the coding region is identified by "walking up." If the gene is highly expressed or differentially expressed, the promoter from the gene can be of use in a regulatory construct for a heterologous gene.

Once the full-length cDNA or gene is obtained, DNA encoding variants can be prepared by site-directed mutagenesis, described in detail in Sambrook *et al.*, 15.3-15.63. The choice of codon or nucleotide to be replaced can be based on disclosure herein on optional changes in amino acids to achieve altered protein structure and/or function.

As an alternative method to obtaining DNA or RNA from a biological material, nucleic acid comprising nucleotides having the sequence of one or more polynucleotides of the invention can be synthesized. Thus, the invention encompasses nucleic acid molecules ranging in length from 15 nucleotides (corresponding to at least 15 contiguous nucleotides of one of "SEQ ID NOS:1-5252") up to a maximum length suitable for one or more biological manipulations, including replication and expression, of the nucleic acid molecule. The invention includes but is not limited to (a) nucleic acid having the size of a full gene, and comprising at least one of "SEQ ID NOS:1-5252;"; (b) the nucleic acid of (a) also comprising at least one additional gene, operably linked to permit expression of a fusion protein; (c) an expression vector comprising (a) or (b); (d) a plasmid comprising (a) or (b); and (e) a recombinant viral particle comprising (a) or (b). Once provided with the polynucleotides disclosed herein, construction or preparation of (a) - (e) are well within the skill in the art.

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The sequence of a nucleic acid comprising at least 15 contiguous nucleotides of at least any one of "SEQ ID NOS:1-5252,", preferably the entire sequence of at least any one of "SEQ ID NOS:1-5252," is not limited and can be any sequence of A, T, G, and/or C (for DNA) and A, U, G, and/or C (for RNA) or modified bases thereof, including inosine and pseudouridine. The choice of sequence will depend on the desired function and can be dictated by coding regions desired, the intron-like regions desired, and the regulatory regions desired. Where the entire sequence of any one of "SEQ ID NOS:1-5252" is within the nucleic acid, the nucleic acid obtained is referred to herein as a polynucleotide comprising the sequence of any one of "SEQ ID NOS:1-5252."

## II. Expression of Polypeptide Encoded by Full-Length cDNA or Full-Length Gene

The provided polynucleotide (e.g., a polynucleotide having a sequence of one of "SEQ ID NOS:1-5252"), the corresponding cDNA, or the full-length gene is used to express a partial or complete gene product. Constructs of polynucleotides having sequences of "SEQ ID NOS:1-5252" can be generated synthetically. Alternatively, single-step assembly of a gene and entire plasmid from large numbers of oligodeoxyribonucleotides is described by, e.g., Stemmer et al., Gene (Amsterdam) (1995) 164(1):49-53. In this method, assembly PCR (the synthesis of long DNA sequences from

large numbers of oligodeoxyribonucleotides (oligos)) is described. The method is derived from DNA shuffling (Stemmer, *Nature* (1994) *370*:389-391), and does not rely on DNA ligase, but instead relies on DNA polymerase to build increasingly longer DNA fragments during the assembly process.

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Appropriate polynucleotide constructs are purified using standard recombinant DNA techniques as described in, for example, Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual, 2nd Ed.*, (1989) Cold Spring Harbor Press, Cold Spring Harbor, NY, and under current regulations described in United States Dept. of HHS, National Institute of Health (NIH) Guidelines for Recombinant DNA Research. The gene product encoded by a polynucleotide of the invention is expressed in any expression system, including, for example, bacterial, yeast, insect, amphibian and mammalian systems. Suitable vectors and host cells are described in U.S. Patent No. 5,654,173.

Bacteria. Expression systems in bacteria include those described in Chang et al., Nature (1978) 275:615; Goeddel et al., Nature (1979) 281:544; Goeddel et al., Nucleic Acids Res. (1980) 8:4057; EP 0 036,776; U.S. Patent No. 4,551,433; DeBoer et al., Proc. Natl. Acad. Sci. (USA) (1983) 80:21-25; and Siebenlist et al., Cell (1980) 20:269.

Yeast. Expression systems in yeast include those described in Hinnen et al., Proc. Natl. Acad. Sci. (USA) (1978) 75:1929; Ito et al., J. Bacteriol. (1983) 153:163; Kurtz et al., Mol. Cell. Biol. (1986) 6:142; Kunze et al., J. Basic Microbiol. (1985) 25:141; Gleeson et al., J. Gen. Microbiol. (1986) 132:3459; Roggenkamp et al., Mol. Gen. Genet. (1986) 202:302; Das et al., J. Bacteriol. (1984) 158:1165; De Louvencourt et al., J. Bacteriol. (1983) 154:737; Van den Berg et al., Bio/Technology (1990) 8:135; Kunze et al., J. Basic Microbiol. (1985) 25:141; Cregg et al., Mol. Cell. Biol. (1985) 5:3376; U.S. Patent Nos. 4,837,148 and 4,929,555; Beach and Nurse, Nature (1981) 300:706; Davidow et al., Curr. Genet. (1985) 10:380; Gaillardin et al., Curr. Genet. (1985) 10:49; Ballance et al., Biochem. Biophys. Res. Commun. (1983) 112:284-289; Tilburn et al., Gene (1983) 26:205-221; Yelton et al., Proc. Natl. Acad. Sci. (USA) (1984) 81:1470-1474; Kelly and Hynes, EMBO J. (1985) 4:475479; EP 0 244,234; and WO 91/00357.

Insect Cells. Expression of heterologous genes in insects is accomplished as described in U.S. Patent No. 4,745,051; Friesen *et al.*, "The Regulation of Baculovirus Gene Expression", in: *The Molecular Biology Of Baculoviruses* (1986) (W. Doerfler, ed.);

EP 0 127,839; EP 0 155,476; and Vlak et al., J. Gen. Virol. (1988) 69:765-776; Miller et al., Ann. Rev. Microbiol. (1988) 42:177; Carbonell et al., Gene (1988) 73:409; Maeda et al., Nature (1985) 315:592-594; Lebacq-Verheyden et al., Mol. Cell. Biol. (1988) 8:3129; Smith et al., Proc. Natl. Acad. Sci. (USA) (1985) 82:8844; Miyajima et al., Gene (1987) 58:273; and Martin et al., DNA (1988) 7:99. Numerous baculoviral strains and variants and corresponding permissive insect host cells from hosts are described in Luckow et al., Bio/Technology (1988) 6:47-55, Miller et al., Generic Engineering (1986) 8:277-279, and Maeda et al., Nature (1985) 315:592-594.

Mammalian Cells. Mammalian expression is accomplished as described in Dijkema et al., EMBO J. (1985) 4:761, Gorman et al., Proc. Natl. Acad. Sci. (USA) (1982) 79:6777, Boshart et al., Cell (1985) 41:521 and U.S. Patent No. 4,399,216. Other features of mammalian expression are facilitated as described in Ham and Wallace, Meth. Enz. (1979) 58:44, Barnes and Sato, Anal. Biochem. (1980) 102:255, U.S. Patent Nos. 4,767,704, 4,657,866, 4,927,762, 4,560,655, WO 90/103430, WO 87/00195, and U.S. RE 30,985.

Polynucleotide molecules comprising a polynucleotide sequence provided herein propagated by placing the molecule in a vector. Viral and non-viral vectors are used, including plasmids. The choice of plasmid will depend on the type of cell in which propagation is desired and the purpose of propagation. Certain vectors are useful for amplifying and making large amounts of the desired DNA sequence. Other vectors are suitable for expression in cells in culture. Still other vectors are suitable for transfer and expression in cells in a whole animal or person. The choice of appropriate vector is well within the skill of the art. Many such vectors are available commercially. The partial or full-length polynucleotide is inserted into a vector typically by means of DNA ligase attachment to a cleaved restriction enzyme site in the vector. Alternatively, the desired nucleotide sequence can be inserted by homologous recombination in vivo. Typically this is accomplished by attaching regions of homology to the vector on the flanks of the desired nucleotide sequence. Regions of homology are added by ligation of oligonucleotides, or by polymerase chain reaction using primers comprising both the region of homology and a portion of the desired nucleotide sequence, for example.

The polynucleotides set forth in "SEQ ID NOS:1-5252" or their corresponding full-length polynucleotides are linked to regulatory sequences as appropriate to obtain the desired expression properties. These can include promoters (attached either at the 5' end of the sense strand or at the 3' end of the antisense strand), enhancers, terminators, operators, repressors, and inducers. The promoters can be regulated or constitutive. In some situations it may be desirable to use conditionally active promoters, such as tissue-specific or developmental stage-specific promoters. These are linked to the desired nucleotide sequence using the techniques described above for linkage to vectors. Any techniques known in the art can be used.

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When any of the above host cells, or other appropriate host cells or organisms, are used to replicate and/or express the polynucleotides or nucleic acids of the invention, the resulting replicated nucleic acid, RNA, expressed protein or polypeptide, is within the scope of the invention as a product of the host cell or organism. The product is recovered by any appropriate means known in the art.

Once the gene corresponding to a selected polynucleotide is identified, its expression can be regulated in the cell to which the gene is native. For example, an endogenous gene of a cell can be regulated by an exogenous regulatory sequence as disclosed in U.S. Patent No. 5,641,670.

## 20 III. Identification of Functional and Structural Motifs of Novel Genes

A. Screening Polynucleotide Sequences and Amino Acid Sequences Against
Publicly Available Databases

Translations of the nucleotide sequence of the provided polynucleotides, cDNAs or full genes can be aligned with individual known sequences. Similarity with individual sequences can be used to determine the activity of the polypeptides encoded by the polynucleotides of the invention. For example, sequences that show similarity with a chemokine sequence can exhibit chemokine activities. Also, sequences exhibiting similarity with more than one individual sequence can exhibit activities that are characteristic of either or both individual sequences.

The full length sequences and fragments of the polynucleotide sequences of the nearest neighbors can be used as probes and primers to identify and isolate the full length

sequence corresponding to provided polynucleotides. The nearest neighbors can indicate a tissue or cell type to be used to construct a library for the full-length sequences corresponding to the provided polynucleotides..

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Typically, a selected polynucleotide is translated in all six frames to determine the best alignment with the individual sequences. The sequences disclosed herein in the Sequence Listing are in a 5' to 3' orientation and translation in three frames can be sufficient (with a few specific exceptions as described in the Examples). These amino acid sequences are referred to, generally, as query sequences, which will be aligned with the individual sequences. Databases with individual sequences are described in "Computer Methods for Macromolecular Sequence Analysis" *Methods in Enzymology* (1996) 266, Doolittle, Academic Press, Inc., a division of Harcourt Brace & Co., San Diego, California, USA. Databases include Genbank, EMBL, and DNA Database of Japan (DDBJ).

Query and individual sequences can be aligned using the methods and computer programs described above, and include BLAST, available over the world wide web at <a href="http://www.ncbi.nlm.nih.gov/BLAST/">http://www.ncbi.nlm.nih.gov/BLAST/</a>. Another alignment algorithm is Fasta, available in the Genetics Computing Group (GCG) package, Madison, Wisconsin, USA, a wholly owned subsidiary of Oxford Molecular Group, Inc. Other techniques for alignment are described in Doolittle, *supra*. Preferably, an alignment program that permits gaps in the sequence is utilized to align the sequences. The Smith-Waterman is one type of algorithm that permits gaps in sequence alignments. See *Meth. Mol. Biol.* (1997) 70: 173-187. Also, the GAP program using the Needleman and Wunsch alignment method can be utilized to align sequences. An alternative search strategy uses MPSRCH software, which runs on a MASPAR computer. MPSRCH uses a Smith-Waterman algorithm to score sequences on a massively parallel computer. This approach improves ability to identify sequences that are distantly related matches, and is especially tolerant of small gaps and nucleotide sequence errors. Amino acid sequences encoded by the provided polynucleotides can be used to search both protein and DNA databases.

Results of individual and query sequence alignments can be divided into three categories, high similarity, weak similarity, and no similarity. Individual alignment results ranging from high similarity to weak similarity provide a basis for determining polypeptide activity and/or structure. Parameters for categorizing individual results include: percentage

of the alignment region length where the strongest alignment is found, percent sequence identity, and p value.

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The percentage of the alignment region length is calculated by counting the number of residues of the individual sequence found in the region of strongest alignment, *e.g.*, contiguous region of the individual sequence that contains the greatest number of residues that are identical to the residues of the corresponding region of the aligned query sequence. This number is divided by the total residue length of the query sequence to calculate a percentage. For example, a query sequence of 20 amino acid residues might be aligned with a 20 amino acid region of an individual sequence. The individual sequence might be identical to amino acid residues 5, 9-15, and 17-19 of the query sequence. The region of strongest alignment is thus the region stretching from residue 9-19, an 11 amino acid stretch. The percentage of the alignment region length is: 11 (length of the region of strongest alignment) divided by (query sequence length) 20 or 55%.

Percent sequence identity is calculated by counting the number of amino acid matches between the query and individual sequence and dividing total number of matches by the number of residues of the individual sequences found in the region of strongest alignment. Thus, the percent identity in the example above would be 10 matches divided by 11 amino acids, or approximately, 90.9%

P value is the probability that the alignment was produced by chance. For a single alignment, the p value can be calculated according to Karlin *et al.*, *Proc. Natl. Acad. Sci.* (1990) 87:2264 and Karlin *et al.*, *Proc. Natl. Acad. Sci.* (1993) 90. The p value of multiple alignments using the same query sequence can be calculated using an heuristic approach described in Altschul *et al.*, *Nat. Genet.* (1994) 6:119. Alignment programs such as BLAST program can calculate the p value.

Another factor to consider for determining identity or similarity is the location of the similarity or identity. Strong local alignment can indicate similarity even if the length of alignment is short. Sequence identity scattered throughout the length of the query sequence also can indicate a similarity between the query and profile sequences. The boundaries of the region where the sequences align can be determined according to Doolittle, *supra*; BLAST or FAST programs; or by determining the area where sequence identity is highest.

High Similarity. In general, in alignment results considered to be of high similarity, the percent of the alignment region length is typically at least about 55% of total length query sequence; more typically, at least about 58%; even more typically; at least about 60% of the total residue length of the query sequence. Usually, percent length of the alignment region can be as much as about 62%; more usually, as much as about 64%; even more usually, as much as about 66%. Further, for high similarity, the region of alignment, typically, exhibits at least about 75% of sequence identity; more typically, at least about 78%; even more typically; at least about 80% sequence identity. Usually, percent sequence identity can be as much as about 82%; more usually, as much as about 84%; even more usually, as much as about 86%.

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The p value is used in conjunction with these methods. If high similarity is found, the query sequence is considered to have high similarity with a profile sequence when the p value is less than or equal to about  $10^{-2}$ ; more usually; less than or equal to about  $10^{-3}$ ; even more usually; less than or equal to about  $10^{-4}$ . More typically, the p value is no more than about  $10^{-5}$ ; more typically; no more than or equal to about  $10^{-10}$ ; even more typically; no more than or equal to about  $10^{-15}$  for the query sequence to be considered high similarity.

Weak Similarity. In general, where alignment results considered to be of weak similarity, there is no minimum percent length of the alignment region nor minimum length of alignment. A better showing of weak similarity is considered when the region of alignment is, typically, at least about 15 amino acid residues in length; more typically, at least about 20; even more typically; at least about 25 amino acid residues in length.

Usually, length of the alignment region can be as much as about 30 amino acid residues; more usually, as much as about 40; even more usually, as much as about 60 amino acid residues. Further, for weak similarity, the region of alignment, typically, exhibits at least about 35% of sequence identity; more typically, at least about 40%; even more typically; at least about 45% sequence identity. Usually, percent sequence identity can be as much as about 50%; more usually, as much as about 55%; even more usually, as much as about 60%.

If low similarity is found, the query sequence is considered to have weak similarity with a profile sequence when the p value is usually less than or equal to about  $10^{-2}$ ; more usually; less than or equal to about  $10^{-3}$ ; even more usually; less than or equal to about  $10^{-4}$ . More

typically, the p value is no more than about 10<sup>-5</sup>; more usually; no more than or equal to about 10<sup>-10</sup>; even more usually; no more than or equal to about 10<sup>-15</sup> for the query sequence to be considered weak similarity.

Similarity Determined by Sequence Identity Alone. Sequence identity alone can be used to determine similarity of a query sequence to an individual sequence and can indicate the activity of the sequence. Such an alignment, preferably, permits gaps to align sequences. Typically, the query sequence is related to the profile sequence if the sequence identity over the entire query sequence is at least about 15%; more typically, at least about 20%; even more typically, at least about 25%; even more typically, at least about 50%.

Sequence identity alone as a measure of similarity is most useful when the query sequence is usually, at least 80 residues in length; more usually, 90 residues; even more usually, at least 95 amino acid residues in length. More typically, similarity can be concluded based on sequence identity alone when the query sequence is preferably 100 residues in length; more preferably, 120 residues in length; even more preferably, 150 amino acid residues in length.

<u>Determining Activity from Alignments with Profile and Multiple Aligned</u>
<u>Sequences.</u> Translations of the provided polynucleotides can be aligned with amino acid profiles that define either protein families or common motifs. Also, translations of the provided polynucleotides can be aligned to multiple sequence alignments (MSA) comprising the polypeptide sequences of members of protein families or motifs. Similarity or identity with profile sequences or MSAs can be used to determine the activity of the gene products (*e.g.*, polypeptides) encoded by the provided polynucleotides or corresponding cDNA or genes. For example, sequences that show an identity or similarity with a chemokine profile or MSA can exhibit chemokine activities.

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Profiles can designed manually by (1) creating an MSA, which is an alignment of the amino acid sequence of members that belong to the family and (2) constructing a statistical representation of the alignment. Such methods are described, for example, in Birney et al., Nucl. Acid Res. (1996) 24(14): 2730-2739. MSAs of some protein families and motifs are publicly available. For example, <a href="http://genome.wustl.edu/Pfam/">http://genome.wustl.edu/Pfam/</a> includes MSAs of 547 different families and motifs. These MSAs are described also in Sonnhammer et al., Proteins (1997) 28: 405-420. Other sources over the world wide web

include the site at <a href="http://www.embl-heidelberg.de/argos/ali/ali.html">http://www.embl-heidelberg.de/argos/ali/ali.html</a>; alternatively, a message can be sent to <a href="https://www.embl-heidelberg.de/argos/ali/ali.html">ALI@EMBL-HEIDELBERG.DE</a> for the information. A brief description of these MSAs is reported in Pascarella et al., Prot. Eng. (1996) 9(3):249-251. Techniques for building profiles from MSAs are described in Sonnhammer et al., supra; Birney et al., supra; and "Computer Methods for Macromolecular Sequence Analysis," Methods in Enzymology (1996) 266, Doolittle, Academic Press, Inc., a division of Harcourt Brace & Co., San Diego, California, USA.

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Similarity between a query sequence and a protein family or motif can be determined by (a) comparing the query sequence against the profile and/or (b) aligning the query sequence with the members of the family or motif. Typically, a program such as Searchwise is used to compare the query sequence to the statistical representation of the multiple alignment, also known as a profile. The program is described in Birney et al., supra. Other techniques to compare the sequence and profile are described in Sonnhammer et al., supra and Doolittle, supra.

Next, methods described by Feng et al., J. Mol. Evol. (1987) 25:351 and Higgins et al., CABIOS (1989) 5:151 can be used align the query sequence with the members of a family or motif, also known as a MSA. Computer programs, such as PILEUP, can be used. See Feng et al., infra. In general, the following factors are used to determine if a similarity between a query sequence and a profile or MSA exists: (1) number of conserved residues found in the query sequence, (2) percentage of conserved residues found in the query sequence, (3) number of frameshifts, and (4) spacing between conserved residues.

Some alignment programs that both translate and align sequences can make any number of frameshifts when translating the nucleotide sequence to produce the best alignment. The fewer frameshifts needed to produce an alignment, the stronger the similarity or identity between the query and profile or MSAs. For example, a weak similarity resulting from no frameshifts can be a better indication of activity or structure of a query sequence, than a strong similarity resulting from two frameshifts. Preferably, three or fewer frameshifts are found in an alignment; more preferably two or fewer frameshifts; even more preferably, no frameshifts are found in an alignment of query and profile or MSAs.

Conserved residues are those amino acids found at a particular position in all or some of the family or motif members. For example, most chemokines contain four conserved cysteines. Alternatively, a position is considered conserved if only a certain class of amino acids is found in a particular position in all or some of the family members. For example, the N-terminal position can contain a positively charged amino acid, such as lysine, arginine, or histidine.

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Typically, a residue of a polypeptide is conserved when a class of amino acids or a single amino acid is found at a particular position in at least about 40% of all class members; more typically, at least about 50%; even more typically, at least about 60% of the members. Usually, a residue is conserved when a class or single amino acid is found in at least about 70% of the members of a family or motif; more usually, at least about 80%; even more usually, at least about 95%.

A residue is considered conserved when three unrelated amino acids are found at a particular position in the some or all of the members; more usually, two unrelated amino acids. These residues are conserved when the unrelated amino acids are found at particular positions in at least about 40% of all class member; more typically, at least about 50%; even more typically, at least about 60% of the members. Usually, a residue is conserved when a class or single amino acid is found in at least about 70% of the members of a family or motif; more usually, at least about 80%; even more usually, at least about 95%.

A query sequence has similarity to a profile or MSA when the query sequence comprises at least about 25% of the conserved residues of the profile or MSA; more usually, at least about 30%; even more usually; at least about 40%. Typically, the query sequence has a stronger similarity to a profile sequence or MSA when the query sequence comprises at least about 45% of the conserved residues of the profile or MSA; more typically, at least about 50%; even more typically; at least about 55%.

## B. <u>Screening Polynucleotide and Amino Acid Sequences Against Protein</u> <u>Profiles</u>

The identify and function of the gene that correlates to a polynucleotide described herein can be determined by screening the polynucleotides or their corresponding amino acid sequences against profiles of protein families. Such profiles focus on common

structural motifs among proteins of each family. Publicly available profiles are described above in Section IVA. Additional or alternative profiles are described below.

In comparing a novel polynucleotide with known sequences, several alignment tools are available. Examples include PileUp, which creates a multiple sequence alignment, and is described in Feng et al., J. Mol. Evol. (1987) 25:351. Another method, GAP, uses the alignment method of Needleman et al., J. Mol. Biol. (1970) 48:443. GAP is best suited for global alignment of sequences. A third method, BestFit, functions by inserting gaps to maximize the number of matches using the local homology algorithm of Smith et al., Adv. Appl. Math. (1981) 2:482.

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## C. <u>Identification of Secreted & Membrane-Bound Polypeptides</u>

Both secreted and membrane-bound polypeptides of the present invention are of particular interest. For example, levels of secreted polypeptides can be assayed in body fluids that are convenient, such as blood, urine, prostatic fluid and semen. Membrane-bound polypeptides are useful for constructing vaccine antigens or inducing an immune response. Such antigens would comprise all or part of the extracellular region of the membrane-bound polypeptides. Because both secreted and membrane-bound polypeptides comprise a fragment of contiguous hydrophobic amino acids, hydrophobicity predicting algorithms can be used to identify such polypeptides.

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A signal sequence is usually encoded by both secreted and membrane-bound polypeptide genes to direct a polypeptide to the surface of the cell. The signal sequence usually comprises a stretch of hydrophobic residues. Such signal sequences can fold into helical structures. Membrane-bound polypeptides typically comprise at least one transmembrane region that possesses a stretch of hydrophobic amino acids that can transverse the membrane. Some transmembrane regions also exhibit a helical structure. Hydrophobic fragments within a polypeptide can be identified by using computer algorithms. Such algorithms include Hopp & Woods, *Proc. Natl. Acad. Sci. USA* (1981) 78:3824-3828; Kyte & Doolittle, *J. Mol. Biol.* (1982) 157: 105-132; and RAOAR algorithm, Degli Esposti *et al.*, *Eur. J. Biochem.* (1990) 190: 207-219.

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Another method of identifying secreted and membrane-bound polypeptides is to translate the polynucleotides of the invention in all six frames and determine if at least 8

contiguous hydrophobic amino acids are present. Those translated polypeptides with at least 8; more typically, 10; even more typically, 12 contiguous hydrophobic amino acids are considered to be either a putative secreted or membrane bound polypeptide.

Hydrophobic amino acids include alanine, glycine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, proline, threonine, tryptophan, tyrosine, and valine.

# IV. <u>Identification of the Function of an Expression Product of a Full-Length Gene</u> <u>Corresponding to a Polynucleotide</u>

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Ribozymes, antisense constructs, and dominant negative mutants can be used to determine function of the expression product of a gene corresponding to a polynucleotide provided herein. These methods and compositions are particularly useful where the provided novel polynucleotide exhibits no significant or substantial homology to a sequence encoding a gene of known function. Antisense molecules and ribozymes can be constructed from synthetic polynucleotides. Typically, the phosphoramidite method of oligonucleotide synthesis is used. See Beaucage et al., Tet. Lett. (1981) 22:1859 and U.S. Patent No. 4,668,777. Automated devices for synthesis are available to create oligonucleotides using this chemistry. Examples of such devices include Biosearch 8600, Models 392 and 394 by Applied Biosystems, a division of Perkin-Elmer Corp., Foster City, California, USA; and Expedite by Perceptive Biosystems, Framingham, Massachusetts, USA. Synthetic RNA, phosphate analog oligonucleotides, and chemically derivatized oligonucleotides can also be produced, and can be covalently attached to other molecules. RNA oligonucleotides can be synthesized, for example, using RNA phosphoramidites. This method can be performed on an automated synthesizer, such as Applied Biosystems, Models 392 and 394, Foster City, California, USA. See Applied Biosystems User Bulletin 53 and Ogilvie et al., Pure & Applied Chem. (1987) 59:325.

Phosphorothioate oligonucleotides can also be synthesized for antisense construction. A sulfurizing reagent, such as tetraethylthiruam disulfide (TETD) in acetonitrile can be used to convert the internucleotide cyanoethyl phosphite to the phosphorothioate triester within 15 minutes at room temperature. TETD replaces the iodine reagent, while all other reagents used for standard phosphoramidite chemistry

remain the same. Such a synthesis method can be automated using Models 392 and 394 by Applied Biosystems, for example.

Oligonucleotides of up to 200 nucleotides can be synthesized, more typically, 100 nucleotides, more typically 50 nucleotides; even more typically 30 to 40 nucleotides. These synthetic fragments can be annealed and ligated together to construct larger fragments. See, for example, Sambrook *et al.*, *supra*.

## A. Ribozymes

Trans-cleaving catalytic RNAs (ribozymes) are RNA molecules possessing endoribonuclease activity. Ribozymes are specifically designed for a particular target, and the target message must contain a specific nucleotide sequence. They are engineered to cleave any RNA species site-specifically in the background of cellular RNA. The cleavage event renders the mRNA unstable and prevents protein expression. Importantly, ribozymes can be used to inhibit expression of a gene of unknown function for the purpose of determining its function in an in vitro or in vivo context, by detecting the phenotypic effect.

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One commonly used ribozyme motif is the hammerhead, for which the substrate sequence requirements are minimal. Design of the hammerhead ribozyme is disclosed in Usman et al., Current Opin. Struct. Biol. (1996) 6:527. Ribozymes can also be prepared and used as described in Long et al., FASEB J. (1993) 7:25; Symons, Ann. Rev. Biochem. (1992) 61:641; Perrotta et al., Biochem. (1992) 31:16; Ojwang et al., Proc. Natl. Acad. Sci. (USA) (1992) 89:10802; and U.S. Patent No. 5,254,678. Ribozyme cleavage of HIV-I RNA is described in U.S. Patent No. 5,144,019; methods of cleaving RNA using ribozymes is described in U.S. Patent No. 5,116,742; and methods for increasing the specificity of ribozymes are described in U.S. Patent No. 5,225,337 and Koizumi et al., Nucleic Acid Res. (1989) 17:7059. Preparation and use of ribozyme fragments in a hammerhead structure are also described by Koizumi et al., Nucleic Acids Res. (1989) 17:7059. Preparation and use of ribozyme fragments in a hairpin structure are described by Chowrira and Burke, Nucleic Acids Res. (1992) 20:2835. Ribozymes can also be made by rolling transcription as described in Daubendiek and Kool, Nat. Biotechnol. (1997) 15(3):273.

The hybridizing region of the ribozyme can be modified or can be prepared as a branched structure as described in Horn and Urdea, *Nucleic Acids Res.* (1989) 17:6959. The basic structure of the ribozymes can also be chemically altered in ways familiar to those skilled in the art, and chemically synthesized ribozymes can be administered as synthetic oligonucleotide derivatives modified by monomeric units. In a therapeutic context, liposome mediated delivery of ribozymes improves cellular uptake, as described in Birikh *et al.*, *Eur. J. Biochem.* (1997) 245:1.

Using the polynucleotide sequences of the invention and methods known in the art.

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ribozymes are designed to specifically bind and cut the corresponding mRNA species. Ribozymes thus provide a means to inhibit the expression of any of the proteins encoded by the disclosed polynucleotides or their full-length genes. The full-length gene need not be known in order to design and use specific inhibitory ribozymes. In the case of a polynucleotide or full-length cDNA of unknown function, ribozymes corresponding to that nucleotide sequence can be tested in vitro for efficacy in cleaving the target transcript. Those ribozymes that effect cleavage in vitro are further tested in vivo. The ribozyme can also be used to generate an animal model for a disease, as described in Birikh *et al.*, *supra*. An effective ribozyme is used to determine the function of the gene of interest by blocking its transcription and detecting a change in the cell. Where the gene is found to be a mediator in a disease, an effective ribozyme is designed and delivered in a gene therapy for blocking transcription and expression of the gene.

Therapeutic and functional genomic applications of ribozymes proceed beginning with knowledge of a portion of the coding sequence of the gene to be inhibited. Thus, for many genes, a partial polynucleotide sequence provides adequate sequence for constructing an effective ribozyme. A target cleavage site is selected in the target sequence, and a ribozyme is constructed based on the 5' and 3' nucleotide sequences that flank the cleavage site. Retroviral vectors are engineered to express monomeric and multimeric hammerhead ribozymes targeting the mRNA of the target coding sequence. These monomeric and multimeric ribozymes are tested in vitro for an ability to cleave the target mRNA. A cell line is stably transduced with the retroviral vectors expressing the ribozymes, and the transduction is confirmed by Northern blot analysis and reverse-transcription polymerase chain reaction (RT-PCR). The cells are screened for inactivation of the target mRNA by

such indicators as reduction of expression of disease markers or reduction of the gene product of the target mRNA.

## B. Antisense

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Antisense nucleic acids are designed to specifically bind to RNA, resulting in the formation of RNA-DNA or RNA-RNA hybrids, with an arrest of DNA replication, reverse transcription or messenger RNA translation. Antisense polynucleotides based on a selected polynucleotide sequence can interfere with expression of the corresponding gene. Antisense polynucleotides are typically generated within the cell by expression from antisense constructs that contain the antisense strand as the transcribed strand. Antisense polynucleotides based on the disclosed polynucleotides will bind and/or interfere with the translation of mRNA comprising a sequence complementary to the antisense polynucleotide. The expression products of control cells and cells treated with the antisense construct are compared to detect the protein product of the gene corresponding to the polynucleotide upon which the antisense construct is based. The protein is isolated and identified using routine biochemical methods.

Given the extensive background literature and clinical experience in antisense therapy, one skilled in the art can use selected polynucleotides of the invention as additional potential therapeutics. The choice of polynucleotide can be narrowed by first testing them for binding to "hot spot" regions of the genome of cancerous cells. If a polynucleotide is identified as binding to a "hot spot", testing the polynucleotide as an antisense compound in the corresponding cancer cells clearly is warranted.

## C. <u>Dominant Negative Mutations</u>

As an alternative method for identifying function of the gene corresponding to a polynucleotide disclosed herein, dominant negative mutations are readily generated for corresponding proteins that are active as homomultimers. A mutant polypeptide will interact with wild-type polypeptides (made from the other allele) and form a non-functional multimer. Thus, a mutation is in a substrate-binding domain, a catalytic domain, or a cellular localization domain. Preferably, the mutant polypeptide will be overproduced. Point mutations are made that have such an effect. In addition, fusion of different polypeptides of various lengths to the terminus of a protein can yield dominant negative mutants. General strategies are available for making dominant negative mutants (see, e.g.,

Herskowitz, *Nature* (1987) 329:219). Such techniques can be used to create loss of function mutations, which are useful for determining protein function.

## V. Construction of Polypeptides of the Invention and Variants Thereof

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The polypeptides of the invention include those encoded by the disclosed polynucleotides. These polypeptides can also be encoded by nucleic acids that, by virtue of the degeneracy of the genetic code, are not identical in sequence to the disclosed polynucleotides. Thus, the invention includes within its scope a polypeptide encoded by a polynucleotide having the sequence of any one of "SEQ ID NOS:1-5252" or a variant thereof.

In general, the term "polypeptide" as used herein refers to both the full length polypeptide encoded by the recited polynucleotide, the polypeptide encoded by the gene represented by the recited polynucleotide, as well as portions or fragments thereof. "Polypeptides" also includes variants of the naturally occurring proteins, where such variants are homologous or substantially similar to the naturally occurring protein, and can be of an origin of the same or different species as the naturally occurring protein (e.g., human, murine, or some other species that naturally expresses the recited polypeptide, usually a mammalian species). In general, variant polypeptides have a sequence that has at least about 80%, usually at least about 90%, and more usually at least about 98% sequence identity with a differentially expressed polypeptide of the invention, as measured by BLAST using the parameters described above. The variant polypeptides can be naturally or non-naturally glycosylated, i.e., the polypeptide has a glycosylation pattern that differs from the glycosylation pattern found in the corresponding naturally occurring protein.

The invention also encompasses homologs of the disclosed polypeptides (or fragments thereof) where the homologs are isolated from other species, *i.e.* other animal or plant species, where such homologs, usually mammalian species, *e.g.* rodents, such as mice, rats; domestic animals, *e.g.*, horse, cow, dog, cat; and humans. By homolog is meant a polypeptide having at least about 35%, usually at least about 40% and more usually at least about 60% amino acid sequence identity a particular differentially expressed protein as identified above, where sequence identity is determined using the BLAST algorithm, with the parameters described *supra*.

In general, the polypeptides of the subject invention are provided in a non-naturally occurring environment, *e.g.* are separated from their naturally occurring environment. In certain embodiments, the subject protein is present in a composition that is enriched for the protein as compared to a control. As such, purified polypeptide is provided, where by purified is meant that the protein is present in a composition that is substantially free of non-differentially expressed polypeptides, where by substantially free is meant that less than 90%, usually less than 60% and more usually less than 50% of the composition is made up of non-differentially expressed polypeptides.

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Also within the scope of the invention are variants; variants of polypeptides include mutants, fragments, and fusions. Mutants can include amino acid substitutions, additions or deletions. The amino acid substitutions can be conservative amino acid substitutions or substitutions to eliminate non-essential amino acids, such as to alter a glycosylation site, a phosphorylation site or an acetylation site, or to minimize misfolding by substitution or deletion of one or more cysteine residues that are not necessary for function. Conservative amino acid substitutions are those that preserve the general charge, hydrophobicity/hydrophilicity, and/or steric bulk of the amino acid substituted. For example, substitutions between the following groups are conservative: Gly/Ala, Val/Ile/Leu, Asp/Glu, Lys/Arg, Asn/Gln, Ser/Cys, Thr, and Phe/Trp/Tyr.

Variants can be designed so as to retain biological activity of a particular region of the protein (e.g., a functional domain and/or, where the polypeptide is a member of a protein family, a region associated with a consensus sequence). In a non-limiting example, Osawa et al., Biochem. Mol. Int. (1994) 34:1003, discusses the actin binding region of a protein from several different species. The actin binding regions of the these species are considered homologous based on the fact that they have amino acids that fall within "homologous residue groups." Homologous residues are judged according to the following groups (using single letter amino acid designations): STAG; ILVMF; HRK; DEQN; and FYW. For example, and S, a T, an A or a G can be in a position and the function (in this case actin binding) is retained.

Additional guidance on amino acid substitution is available from studies of protein evolution. Go et al, Int. J. Peptide Protein Res. (1980) 15:211, classified amino acid residue sites as interior or exterior depending on their accessibility. More frequent

substitution on exterior sites was confirmed to be general in eight sets of homologous protein families regardless of their biological functions and the presence or absence of a prosthetic group. Virtually all types of amino acid residues had higher mutabilities on the exterior than in the interior. No correlation between mutability and polarity was observed of amino acid residues in the interior and exterior, respectively. Amino acid residues were classified into one of three groups depending on their polarity: polar (Arg, Lys, His, Gln, Asn, Asp, and Glu); weak polar (Ala, Pro, Gly, Thr, and Ser), and nonpolar (Cys, Val, Met, Ile, Leu, Phe, Tyr, and Trp). Amino acid replacements during protein evolution were very conservative: 88% and 76% of them in the interior or exterior, respectively, were within the same group of the three. Inter-group replacements are such that weak polar residues are replaced more often by nonpolar residues in the interior and more often by polar residues on the exterior.

Additional guidance for production of polypeptide variants is provided in Querol et al., Prot. Eng. (1996) 9:265, which provides general rules for amino acid substitutions to enhance protein thermostability. New glycosylation sites can be introduced as discussed in Olsen and Thomsen, J. Gen. Microbiol. (1991) 137:579. An additional disulfide bridge can be introduced, as discussed by Perry and Wetzel, Science (1984) 226:555; Pantoliano et al., Biochemistry (1987) 26:2077; Matsumura et al., Nature (1989) 342:291; Nishikawa et al., Protein Eng. (1990) 3:443; Takagi et al., J. Biol. Chem. (1990) 265:6874; Clarke et al., Biochemistry (1993) 32:4322; and Wakarchuk et al., Protein Eng. (1994) 7:1379. Metal binding sites can be introduced, according to Toma et al., Biochemistry (1991) 30:97, and Haezerbrouck et al., Protein Eng. (1993) 6:643. Substitutions with prolines in loops can be made according to Masul et al., Appl. Env. Microbiol. (1994) 60:3579; and Hardy et al., FEBS Lett. 317:89.

Cysteine-depleted muteins are considered variants within the scope of the invention. These variants can be constructed according to methods disclosed in U.S. Patent No. 4,959,314, which discloses substitution of cysteines with other amino acids, and methods for assaying biological activity and effect of the substitution. Such methods are suitable for proteins according to this invention that have cysteine residues suitable for such substitutions, for example to eliminate disulfide bond formation.

Variants also include fragments of the polypeptides disclosed herein, particularly biologically active fragments and/or fragments corresponding to functional domains. Fragments of interest will typically be at least about 10 aa to at least about 15 aa in length, usually at least about 50 aa in length, and can be as long as 300 aa in length or longer, but will usually not exceed about 1000 aa in length, where the fragment will have a stretch of amino acids that is identical to a polypeptide encoded by a polynucleotide having a sequence of any "SEQ ID NOS:1-5252", or a homolog thereof.

The protein variants described herein are encoded by polynucleotides that are within the scope of the invention. The genetic code can be used to select the appropriate codons to construct the corresponding variants.

## VI. <u>Computer-Related Embodiments</u>

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In general, a library of polynucleotides is a collection of sequence information, which information is provided in either biochemical form (e.g., as a collection of polynucleotide molecules), or in electronic form (e.g., as a collection of polynucleotide sequences stored in a computer-readable form, as in a computer system and/or as part of a computer program). The sequence information of the polynucleotides can be used in a variety of ways, e.g., as a resource for gene discovery, as a representation of sequences expressed in a selected cell type (e.g., cell type markers), and/or as markers of a given disease or disease state. In general, a disease marker is a representation of a gene product that is present in all cells affected by disease either at an increased or decreased level relative to a normal cell (e.g., a cell of the same or similar type that is not substantially affected by disease). For example, a polynucleotide sequence in a library can be a polynucleotide that represents an mRNA, polypeptide, or other gene product encoded by the polynucleotide, that is either overexpressed or underexpressed in a breast ductal cell affected by cancer relative to a normal (i.e., substantially disease-free) breast cell.

The nucleotide sequence information of the library can be embodied in any suitable form, e.g., electronic or biochemical forms. For example, a library of sequence information embodied in electronic form includes an accessible computer data file (or, in biochemical form, a collection of nucleic acid molecules) that contains the representative nucleotide sequences of genes that are differentially expressed (e.g., overexpressed or underexpressed)

as between, for example, i) a cancerous cell and a normal cell; ii) a cancerous cell and a dysplastic cell; iii) a cancerous cell and a cell affected by a disease or condition other than cancer; iv) a metastatic cancerous cell and a normal cell and/or non-metastatic cancerous cell; v) a malignant cancerous cell and a non-malignant cancerous cell (or a normal cell) and/or vi) a dysplastic cell relative to a normal cell. Other combinations and comparisons of cells affected by various diseases or stages of disease will be readily apparent to the ordinarily skilled artisan. Biochemical embodiments of the library include a collection of nucleic acids that have the sequences of the genes in the library, where the nucleic acids can correspond to the entire gene in the library or to a fragment thereof, as described in greater detail below.

The polynucleotide libraries of the subject invention include sequence information of a plurality of polynucleotide sequences, where at least one of the polynucleotides has a sequence of any of "SEQ ID NOS:1-5252." By plurality is meant at least 2, usually at least 3 and can include up to all of "SEQ ID NOS:1-5252." The length and number of polynucleotides in the library will vary with the nature of the library, *e.g.*, if the library is an oligonucleotide array, a cDNA array, a computer database of the sequence information, etc.

Where the library is an electronic library, the nucleic acid sequence information can be present in a variety of media. "Media" refers to a manufacture, other than an isolated nucleic acid molecule, that contains the sequence information of the present invention. Such a manufacture provides the genome sequence or a subset thereof in a form that can be examined by means not directly applicable to the sequence as it exists in a nucleic acid. For example, the nucleotide sequence of the present invention, *e.g.* the nucleic acid sequences of any of the polynucleotides of "SEQ ID NOS:1-5252," can be recorded on computer readable media, *e.g.* any medium that can be read and accessed directly by a computer. Such media include, but are not limited to: magnetic storage media, such as a floppy disc, a hard disc storage media media and a magnetic tape; optical storage media such as CD-ROM; electrical storage media such as RAM and ROM; and hybrids of these categories such as magnetic/optical storage media. One of skill in the art can readily appreciate how any of the presently known computer readable mediums can be used to create a manufacture comprising a recording of the present sequence information.

"Recorded" refers to a process for storing information on computer readable medium, using any such methods as known in the art. Any convenient data storage structure can be chosen, based on the means used to access the stored information. A variety of data processor programs and formats can be used for storage, e.g. word processing text file, database format, etc. In addition to the sequence information, electronic versions of the libraries of the invention can be provided in conjunction or connection with other computer-readable information and/or other types of computer-readable files (e.g., searchable files, executable files, etc, including, but not limited to, for example, search program software, etc..).

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By providing the nucleotide sequence in computer readable form, the information can be accessed for a variety of purposes. Computer software to access sequence information is publicly available. For example, the BLAST (Altschul *et al.*, *supra.*) and BLAZE (Brutlag *et al.* Comp. Chem. (1993) 17:203) search algorithms on a Sybase system can be used to identify open reading frames (ORFs) within the genome that contain homology to ORFs from other organisms.

As used herein, "a computer-based system" refers to the hardware means, software means, and data storage means used to analyze the nucleotide sequence information of the present invention. The minimum hardware of the computer-based systems of the present invention comprises a central processing unit (CPU), input means, output means, and data storage means. A skilled artisan can readily appreciate that any one of the currently available computer-based system are suitable for use in the present invention. The data storage means can comprise any manufacture comprising a recording of the present sequence information as described above, or a memory access means that can access such a manufacture.

"Search means" refers to one or more programs implemented on the computer-based system, to compare a target sequence or target structural motif with the stored sequence information. Search means are used to identify fragments or regions of the genome that match a particular target sequence or target motif. A variety of known algorithms are publicly known and commercially available, e.g. MacPattern (EMBL), BLASTN and BLASTX (NCBI). A "target sequence" can be any DNA or amino acid

sequence of six or more nucleotides or two or more amino acids, preferably from about 10 to 100 amino acids or from about 30 to 300 nucleotide residues.

A "target structural motif," or "target motif," refers to any rationally selected sequence or combination of sequences in which the sequence(s) are chosen based on a three-dimensional configuration that is formed upon the folding of the target motif, or on consensus sequences of regulatory or active sites. There are a variety of target motifs known in the art. Protein target motifs include, but are not limited to, enzyme active sites and signal sequences. Nucleic acid target motifs include, but are not limited to, hairpin structures, promoter sequences and other expression elements such as binding sites for transcription factors.

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A variety of structural formats for the input and output means can be used to input and output the information in the computer-based systems of the present invention. One format for an output means ranks fragments of the genome possessing varying degrees of homology to a target sequence or target motif. Such presentation provides a skilled artisan with a ranking of sequences and identifies the degree of sequence similarity contained in the identified fragment.

A variety of comparing means can be used to compare a target sequence or target motif with the data storage means to identify sequence fragments of the genome. A skilled artisan can readily recognize that any one of the publicly available homology search programs can be used as the search means for the computer based systems of the present invention.

As discussed above, the "library" of the invention also encompasses biochemical libraries of the polynucleotides of "SEQ ID NOS:1-5252," e.g., collections of nucleic acids representing the provided polynucleotides. The biochemical libraries can take a variety of forms, e.g., a solution of cDNAs, a pattern of probe nucleic acids stably associated with a surface of a solid support (i.e., an array) and the like. Of particular interest are nucleic acid arrays in which one or more of "SEQ ID NOS:1-5252" is represented on the array. By array is meant a an article of manufacture that has at least a substrate with at least two distinct nucleic acid targets on one of its surfaces, where the number of distinct nucleic acids can be considerably higher, typically being at least 10 nt, usually at least 20 nt and often at least 25 nt. A variety of different array formats have been developed and are known to those of

skill in the art, including those described in 5,242,974; 5,384,261; 5,405,783; 5,412,087; 5,424,186; 5,429,807; 5,436,327; 5,445,934; 5,472,672; 5,527,681; 5,529,756; 5,545,531; 5,554,501; 5,556,752; 5,561,071; 5,599,895; 5,624,711; 5,639,603; 5,658,734; WO 93/17126; WO 95/11995; WO 95/35505; EP 742287; and EP 799897. The arrays of the subject invention find use in a variety of applications, including gene expression analysis, drug screening, mutation analysis and the like, as disclosed in the above-listed exemplary patent documents.

In addition to the above nucleic acid libraries, analogous libraries of polypeptides are also provided, where the where the polypeptides of the library will represent at least a portion of the polypeptides encoded by "SEQ ID NOS:1-5252."

### VII. Utilities

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# A. <u>Use of Polynucleotide Probes in Mapping, and in Tissue Profiling</u>

Polynucleotide probes, generally comprising at least 12 contiguous nucleotides of a polynucleotide as shown in the Sequence Listing, are used for a variety of purposes, such as chromosome mapping of the polynucleotide and detection of transcription levels. Additional disclosure about preferred regions of the disclosed polynucleotide sequences is found in the Examples. A probe that hybridizes specifically to a polynucleotide disclosed herein should provide a detection signal at least 5-, 10-, or 20-fold higher than the background hybridization provided with other unrelated sequences.

Probes in Detection of Expression Levels. Nucleotide probes are used to detect expression of a gene corresponding to the provided polynucleotide. In Northern blots, mRNA is separated electrophoretically and contacted with a probe. A probe is detected as hybridizing to an mRNA species of a particular size. The amount of hybridization is quantitated to determine relative amounts of expression, for example under a particular condition. Probes are used for in situ hybridization to cells to detect expression. Probes can also be used *in vivo* for diagnostic detection of hybridizing sequences. Probes are typically labeled with a radioactive isotope. Other types of detectable labels can be used such as chromophores, fluors, and enzymes. Other examples of nucleotide hybridization assays are described in WO92/02526 and U.S. Patent No. 5,124,246.

The Polymerase Chain Reaction (PCR) is another means for detecting small amounts of target nucleic acids (see, e.g., Mullis et al., Meth. Enzymol. (1987) 155:335; U.S. Patent No. 4,683,195; and U.S. Patent No. 4,683,202). Two primer polynucleotides nucleotides hybridize with the target nucleic acids and are used to prime the reaction. The primers can be composed of sequence within or 3' and 5' to the polynucleotides of the Sequence Listing. Alternatively, if the primers are 3' and 5' to these polynucleotides, they need not hybridize to them or the complements. A thermostable polymerase creates copies of target nucleic acids from the primers using the original target nucleic acids as a template. After a large amount of target nucleic acids is generated by the polymerase, it is detected by methods such as Southern blots. When using the Southern blot method, the labeled probe will hybridize to a polynucleotide of the Sequence Listing or complement.

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Furthermore, mRNA or cDNA can be detected by traditional blotting techniques described in Sambrook *et al.*, "Molecular Cloning: A Laboratory Manual" (New York, Cold Spring Harbor Laboratory, 1989). mRNA or cDNA generated from mRNA using a polymerase enzyme can be purified and separated using gel electrophoresis. The nucleic acids on the gel are then blotted onto a solid support, such as nitrocellulose. The solid support is exposed to a labeled probe and then washed to remove any unhybridized probe. Next, the duplexes containing the labeled probe are detected. Typically, the probe is labeled with radioactivity.

Mapping. Polynucleotides of the present invention are used to identify a chromosome on which the corresponding gene resides. Such mapping can be useful in identifying the function of the polynucleotide-related gene by its proximity to other genes with known function. Function can also be assigned to the polynucleotide-related gene when particular syndromes or diseases map to the same chromosome. For example, use of polynucleotide probes in identification and quantification of nucleic acid sequence aberrations is described in U.S. Patent No. 5,783,387.

For example, fluorescence in situ hybridization (FISH) on normal metaphase spreads facilitates comparative genomic hybridization to allow total genome assessment of changes in relative copy number of DNA sequences. See Schwartz and Samad, *Curr*.

Opin. Biotechnol. (1994) 8:70; Kallioniemi et al., Sem. Cancer Biol. (1993) 4:41; Valdes

et al., Methods in Molecular Biology (1997) 68:1, Boultwood, ed., Human Press, Totowa, NJ.

Polynucleotides are mapped to particular chromosomes using, for example, radiation hybrids or chromosome-specific hybrid panels. See Leach et al., Advances in Genetics, (1995) 33:63-99; Walter et al., Nature Genetics (1994) 7:22; Walter and Goodfellow, Trends in Genetics (1992) 9:352. Panels for radiation hybrid mapping are available from Research Genetics, Inc., Huntsville, Alabama, USA. Databases for markers using various panels are available via the world wide web at http://F/shgc-www.stanford.edu; and <a href="http://www-genome.wi.mit.edu/cgi-bin/contig/rhmapper.pl">http://www-genome.wi.mit.edu/cgi-bin/contig/rhmapper.pl</a>. The statistical program RHMAP can be used to construct a map based on the data from radiation hybridization with a measure of the relative likelihood of one order versus another. RHMAP is available via the world wide web at <a href="http://www.sph.umich.edu/group/statgen/software">http://www.sph.umich.edu/group/statgen/software</a>.

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In addition, commercial programs are available for identifying regions of chromosomes commonly associated with disease, such as cancer. Polynucleotides based on the polynucleotides of the invention can be used to probe these regions. For example, if through profile searching a provided polynucleotide is identified as corresponding to a gene encoding a kinase, its ability to bind to a cancer-related chromosomal region will suggest its role as a kinase in one or more stages of tumor cell development/growth. Although some experimentation would be required to elucidate the role, the polynucleotide constitutes a new material for isolating a specific protein that has potential for developing a cancer diagnostic or therapeutic.

<u>Tissue Typing or Profiling.</u> Expression of specific mRNA corresponding to the provided polynucleotides can vary in different cell types and can be tissue-specific. This variation of mRNA levels in different cell types can be exploited with nucleic acid probe assays to determine tissue types. For example, PCR, branched DNA probe assays, or blotting techniques utilizing nucleic acid probes substantially identical or complementary to polynucleotides listed in the Sequence Listing can determine the presence or absence of the corresponding cDNA or mRNA.

For example, a metastatic lesion is identified by its developmental organ or tissue source by identifying the expression of a particular marker of that organ or tissue. If a

polynucleotide is expressed only in a specific tissue type, and a metastatic lesion is found to express that polynucleotide, then the developmental source of the lesion has been identified. Expression of a particular polynucleotide is assayed by detection of either the corresponding mRNA or the protein product. Immunological methods, such as antibody staining, are used to detect a particular protein product. Hybridization methods can be used to detect particular mRNA species, including but not limited to in situ hybridization and Northern blotting.

<u>Use of Polymorphisms.</u> A polynucleotide of the invention will be useful in forensics, genetic analysis, mapping, and diagnostic applications if the corresponding region of a gene is polymorphic in the human population. Particular polymorphic forms of the provided polynucleotides can be used to either identify a sample as deriving from a suspect or rule out the possibility that the sample derives from the suspect. Any means for detecting a polymorphism in a gene are used, including but not limited to electrophoresis of protein polymorphic variants, differential sensitivity to restriction enzyme cleavage, and hybridization to allele-specific probes.

#### B. Antibody Production

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Expression products of a polynucleotide of the invention, the corresponding mRNA or cDNA, or the corresponding complete gene are prepared and used for raising antibodies for experimental, diagnostic, and therapeutic purposes. For polynucleotides to which a corresponding gene has not been assigned, this provides an additional method of identifying the corresponding gene. The polynucleotide or related cDNA is expressed as described above, and antibodies are prepared. These antibodies are specific to an epitope on the polypeptide encoded by the polynucleotide, and can precipitate or bind to the corresponding native protein in a cell or tissue preparation or in a cell-free extract of an in vitro expression system.

Immunogens for raising antibodies are prepared by mixing the polypeptides encoded by the polynucleotides of the present invention with adjuvants. Alternatively, polypeptides are made as fusion proteins to larger immunogenic proteins. Polypeptides are also covalently linked to other larger immunogenic proteins, such as keyhole limpet hemocyanin. Immunogens are typically administered intradermally, subcutaneously, or intramuscularly. Immunogens are administered to experimental animals such as rabbits,

sheep, and mice, to generate antibodies. Optionally, the animal spleen cells are isolated and fused with myeloma cells to form hybridomas which secrete monoclonal antibodies. Such methods are well known in the art. According to another method known in the art, the selected polynucleotide is administered directly, such as by intramuscular injection, and expressed in vivo. The expressed protein generates a variety of protein-specific immune responses, including production of antibodies, comparable to administration of the protein.

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Preparations of polyclonal and monoclonal antibodies specific for polypeptides encoded by a selected polynucleotide are made using standard methods known in the art. The antibodies specifically bind to epitopes present in the polypeptides encoded by polynucleotides disclosed in the Sequence Listing. Typically, at least 6, 8, 10, or 12 contiguous amino acids are required to form an epitope. However, epitopes which involve non-contiguous amino acids may require more, for example at least 15, 25, or 50 amino acids. A short sequence of a polynucleotide may then be unsuitable for use as an epitope to raise antibodies for identifying the corresponding novel protein, because of the potential for cross-reactivity with a known protein. However, the antibodies can be useful for other purposes, particularly if they identify common structural features of a known protein and a novel polypeptide encoded by a polynucleotide of the invention.

Antibodies that specifically bind to human polypeptides encoded by the provided polypeptides should provide a detection signal at least 5-, 10-, or 20-fold higher than a detection signal provided with other proteins when used in Western blots or other immunochemical assays. Preferably, antibodies that specifically polypeptides of the invention do not bind to other proteins in immunochemical assays at detectable levels and can immunoprecipitate the specific polypeptide from solution.

To test for the presence of serum antibodies to the polypeptide of the invention in a human population, human antibodies are purified by methods well known in the art.

Preferably, the antibodies are affinity purified by passing antiserum over a column to which the corresponding selected polypeptide or fusion protein is bound. The bound antibodies can then be eluted from the column, for example using a buffer with a high salt concentration.

In addition to the antibodies discussed above, genetically engineered antibody derivatives are made, such as single chain antibodies, according to methods well known in the art.

# C. <u>Use of Polynucleotides to Construct Arrays for Diagnostics</u>

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Polynucleotide arrays provide a high throughput technique that can assay a large number of polynucleotide sequences in a sample. This technology can be used as a diagnostic and as a tool to test for differential expression to determine function of an encoded protein. Arrays can be created by spotting polynucleotide probes onto a substrate (*e.g.*, glass, nitrocelllose, *etc.*) in a two-dimensional matrix or array having bound probes. The probes can be bound to the substrate by either covalent bonds or by non-specific interactions, such as hydrophobic interactions. Samples of polynucleotides can be detectably labeled (*e.g.*, using radioactive or fluorescent labels) and then hybridized to the probes. Double stranded polynucleotides, comprising the labeled sample polynucleotides bound to probe polynucleotides, can be detected once the unbound portion of the sample is washed away. Techniques for constructing arrays and methods of using these arrays are described in EP No. 0 799 897; PCT No. WO 97/29212; PCT No. WO 97/27317; EP No. 0 785 280; PCT No. WO 97/02357; U.S. Pat. No. 5,593,839; U.S. Pat. No. 5,578,832; EP No. 0 728 520; U.S. Pat. No. 5,599,695; EP No. 0 721 016; U.S. Pat. No. 5,556,752; PCT No. WO 95/22058; and U.S. Pat. No. 5,631,734.

As discussed in some detail above, arrays can be used to examine differential expression of genes and can be used to determine gene function. For example, arrays of the instant polynucleotide sequences can be used to determine if any of the provided polynucleotides are differentially expressed between a test cell and control cell (e.g., cancer cells and normal cells). For example, high expression of a particular message in a cancer cell, which is not observed in a corresponding normal cell, can indicate a cancer specific protein. Exemplary uses of arrays are further described in, for example, Pappalarado et al., Sem. Radiation Oncol. (1998) 8:217; and Ramsay Nature Biotechnol. (1998) 16:40.

#### D. Differential Expression

The polynucleotides of the invention can also be used to detect differences in expression levels between two cells, e.g., as a method to identify abnormal or diseased tissue in a human. For polynucleotides corresponding to profiles of protein families, the

choice of tissue can be selected according to the putative biological function. In general, the expression of a gene corresponding to a specific polynucleotide is compared between a first tissue that is suspected of being diseased and a second, normal tissue of the human. The tissue suspected of being abnormal or diseased can be derived from a different tissue type of the human, but preferably it is derived from the same tissue type; for example an intestinal polyp or other abnormal growth should be compared with normal intestinal tissue. The normal tissue can be the same tissue as that of the test sample, or any normal tissue of the patient, especially those that express the polynucleotide-related gene of interest (e.g., brain, thymus, testis, heart, prostate, placenta, spleen, small intestine, skeletal muscle, pancreas, and the mucosal lining of the colon). A difference between the polynucleotide-related gene, mRNA, or protein in the two tissues which are compared, for example in molecular weight, amino acid or nucleotide sequence, or relative abundance, indicates a change in the gene, or a gene which regulates it, in the tissue of the human that was suspected of being diseased. Examples of detection of differential expression and its use in diagnosis of cancer are described in U.S. Patent Nos. 5,688,641 and 5,677,125.

The polynucleotide-related genes in the two tissues are compared by any means known in the art. For example, the two genes can be sequenced, and the sequence of the gene in the tissue suspected of being diseased compared with the gene sequence in the normal tissue. The genes corresponding to a provided polynucleotide, or portions thereof, in the two tissues are amplified, for example using nucleotide primers based on the nucleotide sequence shown in the Sequence Listing, using the polymerase chain reaction. The amplified genes or portions of genes are hybridized to detectably labeled nucleotide probes selected from a nucleotide sequence shown in the Sequence Listing. A difference in the nucleotide sequence of the isolated gene in the tissue suspected of being diseased compared with the normal nucleotide sequence suggests a role of the gene product encoded by the subject polynucleotide in the disease, and provides guidance for preparing a therapeutic agent.

Alternatively, mRNA corresponding to a provided polynucleotide in the two tissues is compared. PolyA<sup>+</sup>RNA is isolated from the two tissues as is known in the art. For example, one of skill in the art can readily determine differences in the size or amount of mRNA transcripts between the two tissues using Northern blots and detectably labeled

nucleotide probes selected from the nucleotide sequence shown in the Sequence Listing. Increased or decreased expression of a given mRNA in a tissue sample suspected of being diseased, compared with the expression of the same mRNA in a normal tissue, suggests that the expressed protein has a role in the disease, and also provides a lead for preparing a therapeutic agent.

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The comparison can also be accomplished by analyzing polypeptides between the matched samples. The sizes of the proteins in the two tissues are compared, for example, using antibodies of the present invention to detect polypeptides in Western blots of protein extracts from the two tissues. Other changes, such as expression levels and subcellular localization, can also be detected immunologically, using antibodies to the corresponding protein. A higher or lower level of expression of a given polypeptide in a tissue suspected of being diseased, compared with the same protein expression level in a normal tissue, is indicative that the expressed protein has a role in the disease, and provides guidance for preparing a therapeutic agent.

Similarly, comparison of polynucleotide sequences or of gene expression products, e.g., mRNA and protein, between a human tissue that is suspected of being diseased and a normal tissue of a human, are used to follow disease progression or remission in the human. Such comparisons are made as described above. For example, increased or decreased expression of a gene corresponding to an inventive polynucleotide in the tissue suspected of being neoplastic can indicate the presence of neoplastic cells in the tissue. The degree of increased expression of a given gene in the neoplastic tissue relative to expression of the same gene in normal tissue, or differences in the amount of increased expression of a given gene in the neoplastic tissue over time, is used to assess the progression of the neoplasia in that tissue or to monitor the response of the neoplastic tissue to a therapeutic protocol over time.

The expression pattern of any two cell types can be compared, such as low and high metastatic tumor cell lines, malignant or non-malignant cells, or cells from tissue which have and have not been exposed to a therapeutic agent. A genetic predisposition to disease in a human is detected by comparing expression levels of an mRNA or protein corresponding to a polynucleotide of the invention in a fetal tissue with levels associated in normal fetal tissue. Fetal tissues that are used for this purpose include, but are not limited

to, amniotic fluid, chorionic villi, blood, and the blastomere of an in vitro-fertilized embryo. The comparable normal polynucleotide-related gene is obtained from any tissue. The mRNA or protein is obtained from a normal tissue of a human in which the polynucleotide-related gene is expressed. Differences such as alterations in the nucleotide sequence or size of the same product of the fetal polynucleotide-related gene or mRNA, or alterations in the molecular weight, amino acid sequence, or relative abundance of fetal protein, can indicate a germline mutation in the polynucleotide-related gene of the fetus, which indicates a genetic predisposition to disease. Particular diagnostic and prognostic uses of the disclosed polynucleotides are described in more detail below.

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varying degrees of severity of disease.

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In general, diagnostic methods of the invention for involve detection of a level or amount of a gene product, particularly a differentially expressed gene product, in a test sample obtained from a patient suspected of having or being susceptible to a disease (e.g., breast cancer, lung cancer, colon cancer and/or metastatic forms thereof), and comparing the detected levels to those levels found in normal cells (e.g., cells substantially unaffected by cancer) and/or other control cells (e.g., to differentiate a cancerous cell from a cell affected by dysplasia). Furthermore, the severity of the disease can be assessed by comparing the detected levels of a differentially expressed gene product with those levels detected in samples representing the levels of differentially gene product associated with

Diagnostic, Prognostic, and Other Uses Based On Differential Expression

The term "differentially expressed gene" is intended to encompass a polynucleotide that can, for example, include an open reading frame encoding a gene product (e.g., a polypeptide), and/or introns of such genes and adjacent 5' and 3' non-coding nucleotide sequences involved in the regulation of expression, up to about 20 kb beyond the coding region, but possibly further in either direction. The gene can be introduced into an appropriate vector for extrachromosomal maintenance or for integration into a host genome. In general, a difference in expression level associated with a decrease in expression level of at least about 25%, usually at least about 50% to 75%, more usually at least about 90% or more is indicative of a differentially expressed gene of interest, i.e., a gene that is underexpressed or down-regulated in the test sample relative to a control sample. Furthermore, a difference in expression level associated with an increase in

expression of at least about 25%, usually at least about 50% to 75%, more usually at least about 90% and can be at least about 1½-fold, usually at least about 2-fold to about 10-fold, and can be about 100-fold to about 1,000-fold increase relative to a control sample is indicative of a differentially expressed gene of interest, *i.e.*, an overexpressed or upregulated gene.

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"Differentially expressed polynucleotide" as used herein means a nucleic acid molecule (RNA or DNA) having a sequence that represents a differentially expressed gene, e.g., the differentially expressed polynucleotide comprises a sequence (e.g., an open reading frame encoding a gene product) that uniquely identifies a differentially expressed gene so that detection of the differentially expressed polynucleotide in a sample is correlated with the presence of a differentially expressed gene in a sample. "Differentially expressed polynucleotides" is also meant to encompass fragments of the disclosed polynucleotides, e.g., fragments retaining biological activity, as well as nucleic acids homologous, substantially similar, or substantially identical (e.g., having about 90% sequence identity) to the disclosed polynucleotides.

Methods of the subject invention useful in diagnosis or prognosis typically involve comparison of the abundance of a selected differentially expressed gene product in a sample of interest with that of a control to determine any relative differences in the expression of the gene product, where the difference can be measured qualitatively and/or quantitatively. Quantitation can be accomplished, for example, by comparing the level of expression product detected in the sample with the amounts of product present in a standard curve. A comparison can be made visually; by using a technique such as densitometry, with or without computerized assistance; by preparing a representative library of cDNA clones of mRNA isolated from a test sample, sequencing the clones in the library to determine that number of cDNA clones corresponding to the same gene product, and analyzing the number of clones corresponding to that same gene product relative to the number of clones of the same gene product in a control sample; or by using an array to detect relative levels of hybridization to a selected sequence or set of sequences, and comparing the hybridization pattern to that of a control. The differences in expression are then correlated with the presence or absence of an abnormal expression pattern. A variety of different methods for determining the nucleic acid abundance in a sample are known to

those of skill in the art, where particular methods of interest include those described in:
Pietu et al. Genome Res. (1996) 6:492; Zhao et al., Gene (1995) 156:207; Soares, Curr.

Opin. Biotechnol. (1977) 8: 542; Raval, J. Pharmacol Toxicol Methods (1994) 32:125;

Chalifour et al., Anal. Biochem (1994) 216:299; Stolz et al., Mol. Biotechnol. (1996) 6:225;

Hong et al., Biosci. Reports (1982) 2:907; and McGraw, Anal. Biochem. (1984) 143:298.

Also of interest are the methods disclosed in WO 97/27317, the disclosure of which is herein incorporated by reference.

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In general, diagnostic assays of the invention involve detection of a gene product of a the polynucleotide sequence (e.g., mRNA or polypeptide) that corresponds to a sequence of "SEQ ID NOS:1-5252." The patient from whom the sample is obtained can be apparently healthy, susceptible to disease (e.g., as determined by family history or exposure to certain environmental factors), or can already be identified as having a condition in which altered expression of a gene product of the invention is implicated.

In the assays of the invention, the diagnosis can be determined based on detected gene product expression levels of a gene product encoded by at least one, preferably at least two or more, at least 3 or more, or at least 4 or more of the polynucleotides having a sequence set forth in "SEQ ID NOS:1-5252," and can involve detection of expression of genes corresponding to all of "SEQ ID NOS:1-5252" and/or additional sequences that can serve as additional diagnostic markers and/or reference sequences. Where the diagnostic method is designed to detect the presence or susceptibility of a patient to cancer, the assay preferably involves detection of a gene product encoded by a gene corresponding to a polynucleotide that is differentially expressed in cancer. For example, a higher level of expression of a polynucleotide corresponding to SEQ ID NO:2024 relative to a level associated with a normal sample can indicate the presence of cancer in the patient from whom the sample is derived. In another example, detection of a lower level of a polynucleotide corresponding to SEQ ID NO:590 relative to a normal level is indicative of the presence of cancer in the patient. Further examples of such differentially expressed polynucleotides are described in the Examples below. Given the provided polynucleotides and information regarding their relative expression levels provided herein, assays using such polynucleotides and detection of their expression levels in diagnosis and prognosis will be readily apparent to the ordinarily skilled artisan.

Any of a variety of detectable labels can be used in connection with the various embodiments of the diagnostic methods of the invention. Suitable detectable labels include fluorochromes, (e.g. fluorescein isothiocyanate (FITC), rhodamine, Texas Red, phycoerythrin, allophycocyanin, 6-carboxyfluorescein (6-FAM), 2',7'-dimethoxy-4',5'-dichloro-6-carboxyfluorescein, 6-carboxy-X-rhodamine (ROX), 6-carboxy-2',4',7',4,7-hexachlorofluorescein (HEX), 5-carboxyfluorescein (5-FAM) or N,N,N',N'-tetramethyl-6-carboxyrhodamine (TAMRA)), radioactive labels, (e.g. <sup>32</sup>P, <sup>35</sup>S, <sup>3</sup>H, etc.), and the like. The detectable label can involve a two stage systems (e.g., biotin-avidin, hapten-anti-hapten antibody, etc.)

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Reagents specific for the polynucleotides and polypeptides of the invention, such as antibodies and nucleotide probes, can be supplied in a kit for detecting the presence of an expression product in a biological sample. The kit can also contain buffers or labeling components, as well as instructions for using the reagents to detect and quantify expression products in the biological sample. Exemplary embodiments of the diagnostic methods of the invention are described below in more detail.

Polypeptide detection in diagnosis. In one embodiment, the test sample is assayed for the level of a differentially expressed polypeptide. Diagnosis can be accomplished using any of a number of methods to determine the absence or presence or altered amounts of the differentially expressed polypeptide in the test sample. For example, detection can utilize staining of cells or histological sections with labeled antibodies, performed in accordance with conventional methods. Cells can be permeabilized to stain cytoplasmic molecules. In general, antibodies that specifically bind a differentially expressed polypeptide of the invention are added to a sample, and incubated for a period of time sufficient to allow binding to the epitope, usually at least about 10 minutes. The antibody can be detectably labeled for direct detection (e.g., using radioisotopes, enzymes, fluorescers, chemiluminescers, and the like), or can be used in conjunction with a second stage antibody or reagent to detect binding (e.g., biotin with horseradish peroxidaseconjugated avidin, a secondary antibody conjugated to a fluorescent compound, e.g. fluorescein, rhodamine, Texas red, etc.). The absence or presence of antibody binding can be determined by various methods, including flow cytometry of dissociated cells, microscopy, radiography, scintillation counting, etc. Any suitable alternative methods can

of qualitative or quantitative detection of levels or amounts of differentially expressed polypeptide can be used, for example ELISA, western blot, immunoprecipitation, radioimmunoassay, etc.

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In general, the detected level of differentially expressed polypeptide in the test sample is compared to a level of the differentially expressed gene product in a reference or control sample, e.g., in a normal cell (negative control) or in a cell having a known disease state (positive control).

mRNA detection. The diagnostic methods of the invention can also or alternatively involve detection of mRNA encoded by a gene corresponding to a differentially expressed polynucleotides of the invention. Any suitable qualitative or quantitative methods known in the art for detecting specific mRNAs can be used. mRNA can be detected by, for example, *in situ* hybridization in tissue sections, by reverse transcriptase-PCR, or in Northern blots containing poly A+ mRNA. One of skill in the art can readily use these methods to determine differences in the size or amount of mRNA transcripts between two samples. For example, the level of mRNA of the invention in a tissue sample suspected of being cancerous or dysplastic is compared with the expression of the mRNA in a reference sample, *e.g.*, a positive or negative control sample (*e.g.*, normal tissue, cancerous tissue, *etc.*).

Any suitable method for detecting and comparing mRNA expression levels in a sample can be used in connection with the diagnostic methods of the invention (see, e.g., U.S. 5,804,382). For example, mRNA expression levels in a sample can be determined by generation of a library of expressed sequence tags (ESTs) from the sample, where the EST library is representative of sequences present in the sample (Adams, et al., (1991) *Science* 252:1651). Enumeration of the relative representation of ESTs within the library can be used to approximate the relative representation of the gene transcript within the starting sample. The results of EST analysis of a test sample can then be compared to EST analysis of a reference sample to determine the relative expression levels of a selected polynucleotide, particularly a polynucleotide corresponding to one or more of the differentially expressed genes described herein.

Alternatively, gene expression in a test sample can be performed using serial analysis of gene expression (SAGE) methodology (Velculescu et al., *Science* (1995)

270:484). In short, SAGE involves the isolation of short unique sequence tags from a specific location within each transcript. The sequence tags are concatenated, cloned, and sequenced. The frequency of particular transcripts within the starting sample is reflected by the number of times the associated sequence tag is encountered with the sequence population.

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Gene expression in a test sample can also be analyzed using differential display (DD) methodology. In DD, fragments defined by specific sequence delimiters (e.g., restriction enzyme sites) are used as unique identifiers of genes, coupled with information about fragment length or fragment location within the expressed gene. The relative representation of an expressed gene with a sample can then be estimated based on the relative representation of the fragment associated with that gene within the pool of all possible fragments. Methods and compositions for carrying out DD are well known in the art, see, e.g., U.S. 5,776,683; and U.S. 5,807,680.

Alternatively, gene expression in a sample using hybridization analysis, which is based on the specificity of nucleotide interactions. Oligonucleotides or cDNA can be used to selectively identify or capture DNA or RNA of specific sequence composition, and the amount of RNA or cDNA hybridized to a known capture sequence determined qualitatively or quantitatively, to provide information about the relative representation of a particular message within the pool of cellular messages in a sample. Hybridization analysis can be designed to allow for concurrent screening of the relative expression of hundreds to thousands of genes by using, for example, array-based technologies having high density formats, including filters, microscope slides, or microchips, or solution-based technologies that use spectroscopic analysis (e.g., mass spectrometry). One exemplary use of arrays in the diagnostic methods of the invention is described below in more detail.

Use of a single gene in diagnostic applications. The diagnostic methods of the invention can focus on the expression of a single differentially expressed gene. For example, the diagnostic method can involve detecting a differentially expressed gene, or a polymorphism of such a gene (e.g., a polymorphism in an coding region or control region), that is associated with disease. Disease-associated polymorphisms can include deletion or truncation of the gene, mutations that alter expression level and/or affect activity of the encoded protein, etc.

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Changes in the promoter or enhancer sequence that affect expression levels of an differentially gene can be compared to expression levels of the normal allele by various methods known in the art. Methods for determining promoter or enhancer strength include quantitation of the expressed natural protein; insertion of the variant control element into a vector with a reporter gene such as  $\beta$ -galactosidase, luciferase, chloramphenicol acetyltransferase, *etc.* that provides for convenient quantitation; and the like.

A number of methods are available for analyzing nucleic acids for the presence of a specific sequence, e.g. a disease associated polymorphism. Where large amounts of DNA are available, genomic DNA is used directly. Alternatively, the region of interest is cloned into a suitable vector and grown in sufficient quantity for analysis. Cells that express a differentially expressed gene can be used as a source of mRNA, which can be assayed directly or reverse transcribed into cDNA for analysis. The nucleic acid can be amplified by conventional techniques, such as the polymerase chain reaction (PCR), to provide sufficient amounts for analysis, and a detectable label can be included in the amplification reaction (e.g., using a detectably labeled primer or detectably labeled oligonucleotides) to facilitate detection. The use of the polymerase chain reaction is described in Saiki, et al., Science (1985) 239:487, and a review of techniques can be found in Sambrook, et al., Molecular Cloning: A Laboratory Manual, (1989) pp. 14.2. Alternatively, various methods are known in the art that utilize oligonucleotide ligation as a means of detecting polymorphisms, for examples see Riley et al., Nucl. Acids Res. (1990) 18:2887; and Delahunty et al., Am. J. Hum. Genet. (1996) 58:1239.

The sample nucleic acid, e.g. amplified or cloned fragment, is analyzed by one of a number of methods known in the art. The nucleic acid can be sequenced by dideoxy or other methods, and the sequence of bases compared to a selected sequence, e.g., to a wild-

type sequence. Hybridization with the polymorphic or variant sequence can also be used to determine its presence in a sample (e.g., by Southern blot, dot blot, etc.). The hybridization pattern of a polymorphic or variant sequence and a control sequence to an array of oligonucleotide probes immobilized on a solid support, as described in US 5,445,934, or in WO 95/35505, can also be used as a means of identifying polymorphic or variant sequences associated with disease. Single strand conformational polymorphism (SSCP) analysis, denaturing gradient gel electrophoresis (DGGE), and heteroduplex analysis in gel matrices are used to detect conformational changes created by DNA sequence variation as alterations in electrophoretic mobility. Alternatively, where a polymorphism creates or destroys a recognition site for a restriction endonuclease, the sample is digested with that endonuclease, and the products size fractionated to determine whether the fragment was digested. Fractionation is performed by gel or capillary electrophoresis, particularly acrylamide or agarose gels.

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Screening for mutations in an differentially expressed gene can be based on the functional or antigenic characteristics of the protein. Protein truncation assays are useful in detecting deletions that can affect the biological activity of the protein. Various immunoassays designed to detect polymorphisms in proteins can be used in screening. Where many diverse genetic mutations lead to a particular disease phenotype, functional protein assays have proven to be effective screening tools. The activity of the encoded protein can be determined by comparison with the wild-type protein.

Pattern matching in diagnosis using arrays. In another embodiment, the diagnostic and/or prognostic methods of the invention involve detection of expression of a selected set of genes in a test sample to produce a test expression pattern (TEP). The TEP is compared to a reference expression pattern (REP), which is generated by detection of expression of the selected set of genes in a reference sample (e.g., a positive or negative control sample). The selected set of genes includes at least one of the genes of the invention, which genes correspond to the polynucleotide sequences of "SEQ ID NOS:1-5252." Of particular interest is a selected set of genes that includes gene differentially expressed in the disease for which the test sample is to be screened.

"Reference sequences" or "reference polynucleotides" as used herein in the context of differential gene expression analysis and diagnosis/prognosis refers to a selected set of

polynucleotides, which selected set includes at least one or more of the differentially expressed polynucleotides described herein. A plurality of reference sequences, preferably comprising positive and negative control sequences, can be included as reference sequences. Additional suitable reference sequences are found in Genbank, Unigene, and other nucleotide sequence databases (including, *e.g.*, expressed sequence tag (EST), partial, and full-length sequences).

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"Reference array" means an array having reference sequences for use in hybridization with a sample, where the reference sequences include all, at least one of, or any subset of the differentially expressed polynucleotides described herein. Usually such an array will include at least 3 different reference sequences, and can include any one or all of the provided differentially expressed sequences. Arrays of interest can further comprise sequences, including polymorphisms, of other genetic sequences, particularly other sequences of interest for screening for a disease or disorder (e.g., cancer, dysplasia, or other related or unrelated diseases, disorders, or conditions). The oligonucleotide sequence on the array will usually be at least about 12 nt in length, and can be of about the length of the provided sequences, or can extend into the flanking regions to generate fragments of 100 nt to 200 nt in length or more.

A "reference expression pattern" or "REP" as used herein refers to the relative levels of expression of a selected set of genes, particularly of differentially expressed genes, that is associated with a selected cell type, e.g., a normal cell, a cancerous cell, a cell exposed to an environmental stimulus, and the like. A "test expression pattern" or "TEP" refers to relative levels of expression of a selected set of genes, particularly of differentially expressed genes, in a test sample (e.g., a cell of unknown or suspected disease state, from which mRNA is isolated).

"Diagnosis" as used herein generally includes determination of a subject's susceptibility to a disease or disorder, determination as to whether a subject is presently affected by a disease or disorder, as well as to the prognosis of a subject affected by a disease or disorder (e.g., identification of pre-metastatic or metastatic cancerous states, stages of cancer, or responsiveness of cancer to therapy). The present invention particularly encompasses diagnosis of subjects in the context of breast cancer (e.g., carcinoma in situ (e.g., ductal carcinoma in situ), estrogen receptor (ER)-positive breast

cancer, ER-negative breast cancer, or other forms and/or stages of breast cancer), lung cancer (e.g., small cell carcinoma, non-small cell carcinoma, mesothelioma, and other forms and/or stages of lung cancer), and colon cancer (e.g., adenomatous polyp, colorectal carcinoma, and other forms and/or stages of colon cancer).

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"Sample" or "biological sample" as used throughout here are generally meant to refer to samples of biological fluids or tissues, particularly samples obtained from tissues, especially from cells of the type associated with the disease for which the diagnostic application is designed (e.g., ductal adenocarcinoma), and the like. "Samples" is also meant to encompass derivatives and fractions of such samples (e.g., cell lysates). Where the sample is solid tissue, the cells of the tissue can be dissociated or tissue sections can be analyzed.

REPs can be generated in a variety of ways according to methods well known in the art. For example, REPs can be generated by hybridizing a control sample to an array having a selected set of polynucleotides (particularly a selected set of differentially expressed polynucleotides), acquiring the hybridization data from the array, and storing the data in a format that allows for ready comparison of the REP with a TEP. Alternatively, all expressed sequences in a control sample can be isolated and sequenced, *e.g.*, by isolating mRNA from a control sample, converting the mRNA into cDNA, and sequencing the cDNA. The resulting sequence information roughly or precisely reflects the identity and relative number of expressed sequences in the sample. The sequence information can then be stored in a format (*e.g.*, a computer-readable format) that allows for ready comparison of the REP with a TEP. The REP can be normalized prior to or after data storage, and/or can be processed to selectively remove sequences of expressed genes that are of less interest or that might complicate analysis (*e.g.*, some or all of the sequences associated with housekeeping genes can be eliminated from REP data).

TEPs can be generated in a manner similar to REPs, e.g., by hybridizing a test sample to an array having a selected set of polynucleotides, particularly a selected set of differentially expressed polynucleotides, acquiring the hybridization data from the array, and storing the data in a format that allows for ready comparison of the TEP with a REP. The REP and TEP to be used in a comparison can be generated simultaneously, or the TEP can be compared to previously generated and stored REPs.

In one embodiment of the invention, comparison of a TEP with a REP involves hybridizing a test sample with a reference array, where the reference array has one or more reference sequences for use in hybridization with a sample. The reference sequences include all, at least one of, or any subset of the differentially expressed polynucleotides described herein. Hybridization data for the test sample is acquired, the data normalized, and the produced TEP compared with a REP generated using an array having the same or similar selected set of differentially expressed polynucleotides. Probes that correspond to sequences differentially expressed between the two samples will show decreased or increased hybridization efficiency for one of the samples relative to the other.

Reference arrays can be produced according to any suitable methods known in the art. For example, methods of producing large arrays of oligonucleotides are described in U.S. 5,134,854, and U.S. 5,445,934 using light-directed synthesis techniques. Using a computer controlled system, a heterogeneous array of monomers is converted, through simultaneous coupling at a number of reaction sites, into a heterogeneous array of polymers. Alternatively, microarrays are generated by deposition of pre-synthesized oligonucleotides onto a solid substrate, for example as described in PCT published application no. WO 95/35505.

Methods for collection of data from hybridization of samples with a reference arrays are also well known in the art. For example, the polynucleotides of the reference and test samples can be generated using a detectable fluorescent label, and hybridization of the polynucleotides in the samples detected by scanning the microarrays for the presence of the detectable label. Methods and devices for detecting fluorescently marked targets on devices are known in the art. Generally, such detection devices include a microscope and light source for directing light at a substrate. A photon counter detects fluorescence from the substrate, while an x-y translation stage varies the location of the substrate. A confocal detection device that can be used in the subject methods is described in U.S. Patent no. 5,631,734. A scanning laser microscope is described in Shalon et al., *Genome Res.* (1996) 6:639. A scan, using the appropriate excitation line, is performed for each fluorophore used. The digital images generated from the scan are then combined for subsequent analysis. For any particular array element, the ratio of the fluorescent signal from one

sample (e.g., a test sample) is compared to the fluorescent signal from another sample (e.g., a reference sample), and the relative signal intensity determined.

Methods for analyzing the data collected from hybridization to arrays are well known in the art. For example, where detection of hybridization involves a fluorescent label, data analysis can include the steps of determining fluorescent intensity as a function of substrate position from the data collected, removing outliers, *i.e.* data deviating from a predetermined statistical distribution, and calculating the relative binding affinity of the targets from the remaining data. The resulting data can be displayed as an image with the intensity in each region varying according to the binding affinity between targets and probes.

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In general, the test sample is classified as having a gene expression profile corresponding to that associated with a disease or non-disease state by comparing the TEP generated from the test sample to one or more REPs generated from reference samples (e.g., from samples associated with cancer or specific stages of cancer, dysplasia, samples affected by a disease other than cancer, normal samples, etc.). The criteria for a match or a substantial match between a TEP and a REP include expression of the same or substantially the same set of reference genes, as well as expression of these reference genes at substantially the same levels (e.g., no significant difference between the samples for a signal associated with a selected reference sequence after normalization of the samples, or at least no greater than about 25% to about 40% difference in signal strength for a given reference sequence. In general, a pattern match between a TEP and a REP includes a match in expression, preferably a match in qualitative or quantitative expression level, of at least one of, all or any subset of the differentially expressed genes of the invention.

Pattern matching can be performed manually, or can be performed using a computer program. Methods for preparation of substrate matrices (e.g., arrays), design of oligonucleotides for use with such matrices, labeling of probes, hybridization conditions, scanning of hybridized matrices, and analysis of patterns generated, including comparison analysis, are described in, for example, U.S. 5,800,992.

### F. Use of the Polynucleotides of the Invention in Cancer

Oncogenesis involves the unbridled growth, dedifferentiation and abnormal migration of cells. Cancerous cells can have the ability to compress, invade, and destroy

normal tissue. Cancerous cells may also metastasize to other parts of the body via the bloodstream or the lymph system and colonize in these other areas. Different cancers are classified by the cell from which the cancerous cell is derived and from its cellular morphology and/or state of differentiation.

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Somatic genetic abnormalities cause cancer initiation and progression. Cancer generally is clonally formed, *i.e.* gain of function of oncogenes and loss of function of tumor suppressor genes within a single cell transform the cell to be cancerous, and that single cell grows and divides to form a cancerous lesion. The genes known to be involved in cancer initiation and progression are involved in numerous cellular functions, including developmental differentiation, cell cycle regulation, cell signaling, immunological response, DNA replication, and DNA repair.

The identification and characterization of genetic or biochemical markers in blood or tissues that will detect the earliest changes along the carcinogenesis pathway and monitor the efficacy of various therapies and preventive interventions is a major goal of cancer research. Scientists have identified genetic changes in stool specimens that indicate the stages of colon cancer, and other biomarkers such as gene mutations, hormone receptors, proteins that inhibit metastasis, and enzymes that metabolize drugs are all being used to determine the severity and predict the course of breast, prostate, lung, and other cancers.

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Recent advances in the pathogenesis of certain cancers has been helpful in determining patient treatment. The level of expression of certain polynucleotides can be indicative of a poorer prognosis, and therefore warrant more aggressive chemo- or radiotherapy for a patient. The correlation of novel surrogate tumor specific features with response to treatment and outcome in patients has defined certain prognostic indicators that allow the design of tailored therapy based on the molecular profile of the tumor. These therapies include antibody targeting and gene therapy. Moreover, a promising level of one or more marker polynucleotides can provide impetus for not aggressively treating a particular patient, thus sparing the patient the deleterious side effects of aggressive therapy. Determining expression of certain polynucleotides and comparison of a patients profile with known expression in normal tissue and variants of the disease allows

a determination of the best possible treatment for a patient, both in terms of specificity of treatment and in terms of comfort level of the patient.

Surrogate tumor markers, such as polynucleotide expression, can also be used to better classify, and thus diagnose and treat, different forms and disease states of cancer. Two classifications widely used in oncology that can benefit from identification of the expression levels of the polynucleotides of the invention are staging of the cancerous disorder, and grading the nature of the cancerous tissue.

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Staging. Staging is a process used by physicians to describe how advanced the cancerous state is in a patient. Staging assists the physician in determining a prognosis, planning treatment and evaluating the results of such treatment. Different staging systems are used for different types of cancer, but each generally involves the following determinations: the type of tumor, indicated by T; whether the cancer has metastasized to nearby lymph nodes, indicated by N; and whether the cancer has metastasized to more distant parts of the body, indicated by M. This system of staging is called the TNM system. Generally, if a cancer is only detectable in the area of the primary lesion without having spread to any lymph nodes it is called Stage I. If it has spread only to the closest lymph nodes, it is called Stage II. In Stage III, the cancer has generally spread to the lymph nodes in near proximity to the site of the primary lesion. Cancers that have spread to a distant part of the body, such as the liver, bone, brain or another site, are called Stage IV, the most advanced stage.

Currently, the determination of staging is done using pathological techniques and is based more on the presence or absence of malignant tissue rather than the characteristics of the tumor type. Presence or absence of malignant tissue is based primarily on the gross morphology of the cells in the areas biopsied. The polynucleotides of the invention can facilitate fine-tuning of the staging process by identifying markers for the aggresivity of a cancer, *e.g.* the metastatic potential, as well as the presence in different areas of the body. Thus, a Stage II cancer with a polynucleotide signifying a high metastatic potential cancer can be used to change a borderline Stage II tumor to a Stage III tumor, justifying more aggressive therapy. Conversely, the presence of a polynucleotide signifying a lower metastatic potential allows more conservative staging of a tumor.

Grading of cancers. Grade is a term used to describe how closely a tumor resembles normal tissue of its same type. Based on the microscopic appearance of a tumor, pathologists will identify the grade of a tumor based on parameters such as cell morphology, cellular organization, and other markers of differentiation. As a general rule, the grade of a tumor corresponds to its rate of growth or aggressiveness. That is, undifferentiated or high-grade tumors grow more quickly than well differentiated or low-grade tumors. Information about tumor grade is useful in planning treatment and predicting prognosis.

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The American Joint Commission on Cancer has recommended the following guidelines for grading tumors: 1) GX Grade cannot be assessed; 2) G1 Well differentiated; G2 Moderately well differentiated; 3) G3 Poorly differentiated; 4) G4 Undifferentiated. Although grading is used by pathologists to describe most cancers, it plays a more important role in treatment planning for certain types than for others. An example is the Gleason system that is specific for prostate cancer, which uses grade numbers to describe the degree of differentiation. Lower Gleason scores indicate well-differentiated cells. Intermediate scores denote tumors with moderately differentiated cells. Higher scores describe poorly differentiated cells. Grade is also important in some types of brain tumors and soft tissue sarcomas.

The polynucleotides of the invention can be especially valuable in determining the grade of the tumor, as they not only can aid in determining the differentiation status of the cells of a tumor, they can also identify factors other than differentiation that are valuable in determining the aggressivity of a tumor, such as metastatic potential.

<u>Familial Cancer Genes.</u> A number of cancer syndromes are linked to Mendelian inheritance of a predisposition to develop particular cancers. The following table contains a list of cancer types that can be inherited, and for which the gene or genes responsible have been identified. Most of the cancer types listed can occur as part of several different genetic conditions, each caused by alterations in a different gene.

Cancer Type	Genetic Condition	Gene
Brain Brain	Li-Fraumeni syndrome	TP53
	Neurofibromatosis 1	NF1
	Neurofibromatosis 2	NF2
	von Hippel-Lindau syndrome	VHL

Cancer Type	Genetic Condition	Gene
	Tuberous sclerosis 2	TSC2
Breast	Hereditary breast/ovarian cancer 1	BRCA1
	Hereditary breast/ovarian cancer 2	BRCA2
	Li-Fraumeni syndrome	TP53
	Ataxia telangiectasia	ATM
Colon	Familial adenomatous polyposis (FAP)	APC
	Hereditary non-polyposis colon cancer (HNPCC) 1	HMSH2
	Hereditary non-polyposis colon cancer (HNPCC) 2	hMLH1
	Hereditary non-polyposis colon cancer (HNPCC) 3	hPMS1
	Hereditary non-polyposis colon cancer (HNPCC) 4	hPMS2
Endocrine	Multiple endocrine neoplasia 1 (MEN1)	MEN1
(parathyroid, pituitary, GI endocrine)		
Endocrine	Multiple endocrine neoplasia 2 (MEN2)	RET
(pheochromacytoma, medullary thyroid)		
Endometrial	Hereditary non-polyposis colon cancer (HNPCC) 1	hMSH2
	Hereditary non-polyposis colon cancer (HNPCC) 2	hMLH1
	Hereditary non-polyposis colon cancer (HNPCC) 3	hPMS1
	Hereditary non-polyposis colon cancer (HNPCC) 4	hPMS2
Eye	Hereditary retinoblastoma	RB1
Hematologic	Li-Fraumeni syndrome	TP53
(lymphomas and leukemia)		
	Ataxia telangiectasia	ATM
Kidney	Hereditary Wilms' tumor	WT1
	von Hippel-Lindau syndrome	VHL
	Tuberous sclerosis 2	TSC2
Ovary	Hereditary breast/ovarian cancer 1	BRCA1
	Hereditary breast/ovarian cancer 2	BRCA2
Sarcoma	Hereditary retinoblastoma	RB1
	Li-Fraumeni syndrome	TP53
	Neurofibromatosis 1	NF1
Skin	Hereditary melanoma 1	CDKN2
	Hereditary melanoma 2	CDK4
	Basal cell naevus (Gorlin) syndrome	PTCH
Stomach	Hereditary non-polyposis colon cancer (HNPCC) 1	hMSH2
	Hereditary non-polyposis colon cancer (HNPCC) 2	hMLH1
	Hereditary non-polyposis colon cancer (HNPCC) 3	hPMS1
	Hereditary non-polyposis colon cancer (HNPCC) 4	hPMS2

The polynucleotides of the invention can be especially useful to monitor patients having any of the above syndromes to detect potentially malignant events at a molecular level before they are detectable at a gross morphological level. As can be seen from the table, a number of genes are involved in multiple forms of cancer. Thus, a polynucleotide of the invention identified as important for metastatic colon cancer can also have clinical implications for a patient diagnosed with stomach cancer or endometrial cancer.

Lung Cancer. Lung cancer is one of the most common cancers in the United States, accounting for about 15 percent of all cancer cases, or 170,000 new cases each year. At this time, over half of the lung cancer cases in the United States are in men, but the number found in women is increasing and will soon equal that in men. Today more women die of lung cancer than of breast cancer. Lung cancer is especially difficult to diagnose and treat because of the large size of the lungs, which allows cancer to develop for years undetected. In fact, lung cancer can spread outside the lungs without causing any symptoms. Adding to the confusion, the most common symptom of lung cancer, a persistent cough, can often be mistaken for a cold or bronchitis.

Although there are more than a dozen different kinds of lung cancer, the two main types of lung cancer are small cell and nonsmall cell, which encompass about 90% of all lung cancer cases. Small cell carcinoma (also called oat cell carcinoma), which usually starts in one of the larger bronchial tubes, grows fairly rapidly, and is likely to be large by the time of diagnosis. Nonsmall cell lung cancer (NSCLC) is made up of three general subtypes of lung cancer. Epidermoid carcinoma (also called squamous cell carcinoma) usually starts in one of the larger bronchial tubes and grows relatively slowly. The size of these tumors can range from very small to quite large. Adenocarcinoma starts growing near the outside surface of the lung and can vary in both size and growth rate. Some slowly growing adenocarcinomas are described as alveolar cell cancer. Large cell carcinoma starts near the surface of the lung, grows rapidly, and the growth is usually fairly large when diagnosed. Other less common forms of lung cancer are carcinoid, cylindroma, mucoepidermoid, and malignant mesothelioma.

Currently, CT scans, MRIs, X-rays, sputum cytology, and biopsies are used to diagnose nonsmall cell lung cancer. The form and cellular origin of the lung cancer is diagnosed primarily through biopsy from either a surgical biopsy or a needle aspiration of lung tissue, and usually the biopsy is prompted from an abnormality identified on an X-ray. In some cases, sputum cytology can reveal lung cancers in patients with normal X-rays or can determine the type of lung cancer, but because it cannot pinpoint the tumor's location, a positive sputum cytology test is usually followed by further tests. Since these tests are based in large part on gross morphology of the tissue, the diagnosis of a particular kind of tumor is largely subjective, and the diagnosis can vary significantly between clinicians.

The polynucleotides of the invention can be used to distinguish types of lung cancer as well as identifying traits specific to a certain patient's cancer. For example, if the patient's biopsy expresses a polynucleotide that is associated with a low metastatic potential, it may justify leaving a larger portion of the patient's lung in surgery to remove the lesion. Alternatively, a smaller lesion with expression of a polynucleotide that is associated with high metastatic potential may justify a more radical removal of lung tissue and/or the surrounding lymph nodes, even if no metastasis can be identified through pathological examination.

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Similarly, the expression of polynucleotides of the invention can be used in the diagnosis, prognosis and management of colorectal cancer. The differential expression of a polynucleotide in hyperplasia can be used as a diagnostic marker for metastatic lung cancer. The polynucleotides of the invention that would be especially useful for this purpose are those that exhibit differential expression between high metastatic versus low metastatic lung cancer, *i.e.* SEQ ID NOS: 174, 254, 466, 571, 574, 590, 922, 1355, 1422, 2007, 2038, 2245, 10, 54, 65, 171, 203, 252, 253, 285, 419, 420, 491, 525, 526, 552, 693, 700, 726, 742, 746, 861, 990, 1088, 1288, 1417, 1444, 1454, 1570, 1597, 1979, 2024, 2034, and 2126. Detection of malignant lung cancer with a higher metastatic potential can be determined using expression levels of any of these sequences alone or in combination with the levels of expression of other known genes.

Breast Cancer. The National Cancer Institute (NCI) estimates that about 1 in 8 women in the United States will develop breast cancer during her lifetime. Clinical breast examination and mammography are recommended as combined modalities for breast cancer screening, and the nature of the cancer will often depend upon the location of the tumor and the cell type from which the tumor is derived. The majority of breast cancers are adenocarcinomas subtypes, which can be summarized as follows:

Ductal carcinoma in situ (DCIS): Ductal carcinoma in situ is the most common type of noninvasive breast cancer. In DCIS, the malignant cells have not metastasized through the walls of the ducts into the fatty tissue of the breast. Comedocarcinoma is a type of DCIS that is more likely than other types of DCIS to come back in the same area after lumpectomy. It is more closely linked to eventual development of invasive ductal carcinoma than other forms of DCIS.

Infiltrating (or invasive) ductal carcinoma (IDC): this type of cancer has metastasized through the wall of the duct and invaded the fatty tissue of the breast. At this point, it has the potential to use the lymphatic system and bloodstream for metastasis to more distant parts of the body. Infiltrating ductal carcinoma accounts for about 80% of breast cancers.

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Lobular carcinoma in situ (LCIS): While not a true cancer, LCIS (also called lobular neoplasia) is sometimes classified as a type of noninvasive breast cancer. It does not penetrate through the wall of the lobules. Although it does not itself usually become an invasive cancer, women with this condition have a higher risk of developing an invasive breast cancer in the same breast, or in the opposite breast.

Infiltrating (or invasive) lobular carcinoma (ILC): ILC is similar to IDC, in that it has the potential metastasize elsewhere in the body. About 10% to 15% of invasive breast cancers are invasive lobular carcinomas. ILC can be more difficult to detect by mammogram than IDC.

Inflammatory breast cancer: This rare type of invasive breast cancer accounts for about 1% of all breast cancers and is extremely aggressive. Multiple skin symptoms associated with this cancer are caused by cancer cells blocking lymph vessels or channels in the skin over the breast.

Medullary carcinoma: This special type of infiltrating breast cancer has a relatively well defined, distinct boundary between tumor tissue and normal tissue. It accounts for about 5% of breast cancers. The prognosis for this kind of breast cancer is better than for other types of invasive breast cancer.

Mucinous carcinoma: This rare type of invasive breast cancer originates from mucus-producing cells. The prognosis for mucinous carcinoma is better than for the more common types of invasive breast cancer.

Paget's disease of the nipple: This type of breast cancer starts in the ducts and spreads to the skin of the nipple and the areola. It is a rare type of breast cancer, occurring in only 1% of all cases. Paget's disease can be associated with in situ carcinoma, or with infiltrating breast carcinoma. If no lump can be felt in the breast tissue, and the biopsy shows DCIS but no invasive cancer, the prognosis is excellent.

Phyllodes tumor: This very rare type of breast tumor forms from the stroma of the breast, in contrast to carcinomas which develop in the ducts or lobules. Phyllodes (also spelled phylloides) tumors are usually benign, but are malignant on rare occasions. Nevertheless, malignant phyllodes tumors are very rare and less than 10 women per year in the US die of this disease. Benign phyllodes tumors are successfully treated by removing the mass and a narrow margin of normal breast tissue.

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Tubular carcinoma: Accounting for about 2% of all breast cancers, tubular carcinomas are a special type of infiltrating breast carcinoma. They have a better prognosis than usual infiltrating ductal or lobularcarcinomas.

High-quality mammography combined with clinical breast exam remains the only screening method clearly tied to reduction in breast cancer mortality. Lower dose x-rays, digitized computer rather than film images, and the use of computer programs to assist diagnosis, are almost ready for widespread dissemination. Other technologies also are being developed, including magnetic resonance imaging and ultrasound. In addition, a very low radiation exposure technique, positron emission tomography has the potential for detecting early breast cancer.

It is also possible to differentiate between non-cancerous breast tissue and malignant breast tissue by analyzing differential gene expression between tissues. In addition, there may be several possible alterations that lead to the various possible types of breast cancer. The different types of breast tumors (e.g., invasive vs. non-invasive, ductal vs. axillary lymph node) can be differentiable from one another by the identification of the differences in genes expressed by different types of breast tumor tissues (Porter-Jordan et al., Hematol Oncol Clin North Am (1994) 8:73). Breast cancer can thus be generally diagnosed by detection of expression of a gene or genes associated with breast tumors. Where enough information is available about the differential gene expression between various types of breast tumor tissues, the specific type of breast tumor can also be diagnosed.

For example, increased estrogen receptor (ER) expression in normal breast epithileum, while not itself indicative of malignant tissue, is a known risk marker for development of breast cancer. Khan SA *et al.*, *Cancer Res* (1994) *54*:993. Malignant breast cancer is often divided into two groups, ER-positive and ER-negative, based on the

estrogen receptor status of the tissue. The ER status represents different survival length and response to hormone therapy, and is thought to represent either: 1) an indicator of different stages of the disease, or 2) an indicator that allows differentiation between two similar but distinct diseases. K. Zhu et al., Med. Hypoth. (1997) 49:69. A number of other genes are known to vary expression between either different stages of cancer or different types of similar breast cancer.

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Similarly, the expression of polynucleotides of the invention can be used in the diagnosis and management of breast cancer. The differential expression of a polynucleotide in human breast tumor tissue can be used as a diagnostic marker for human breast cancer. The polynucleotides of the invention that would be especially useful for this purpose are those that exhibit differential expression between breast cancer tissue with a high metastatic potential and a low metastatic potential, i.e. SEQ ID NOS:15, 36, 44, 89, 172, 203, 261, 419, 420, 503, 552, 564, 570, 590, 693, 707, 711, 726, 746, 756, 990, 1122, 1142, 1286, 1289, 1435, 1860, 1933, 1934, 1979, 1980, 2007, 2023, 2409, 2486, 45, 146, 154, 159, 165, 174, 183, 364, 366, 387, 496, 510, 512, 529, 560, 606, 644, 646, 754, 875, 902, 921, 942, 1095, 1104, 1131, 1170, 1184, 1205, 1354, 1387, 1535, 1751, 1764, 1777, 1795, 1869, 1882, 1890, 1915, 2040, 2059, 2223, 2245, 2300, 2325, 2462, 2488, 2492; Detection of breast cancer can be determined using expression levels of any of these sequences alone or in combination. Determination of the aggressive nature and/or the metastatic potential of a breast cancer can also be determined by comparing levels of one or more polynucleotides of the invention and comparing levels of another sequence known to vary in cancerous tissue, e.g. ER expression. In addition, development of breast cancer can be detected by examining the ratio of SEQ ID NO: to the levels of steroid hormones (e.g., testosterone or estrogen) or to other hormones (e.g., growth hormone, insulin). Thus expression of specific marker polynucleotides can be used to discriminate between normal and cancerous breast tissue, to discriminate between breast cancers with different cells of origin, to discriminate between breast cancers with different potential metastatic rates, etc.

Diagnosis of breast cancer can also involve comparing the expression of a polynucleotide of the invention with the expression of other sequences in non-malignant breast tissue samples in comparison to one or more forms of the diseased tissue. A comparison of expression of one or more polynucleotides of the invention between the

samples provides information on relative levels of these polynucleotides as well as the ratio of these polynucleotides to the expression of other sequences in the tissue of interest compared to normal.

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This risk of breast cancer is elevated significantly by the presence of an inherited risk for breast cancer, such as a mutation in BRCA-1 or BRCA-2. New diagnostic tools are being developed to address the needs of higher risk patients to complement mammography and physical examinations for early detection of breast cancer, particularly among younger women. The presence of antigen or expression markers in nipple aspirate fluid (NAF) samples collected from one or both breasts can be useful for useful for risk assessment or early cancer detection. Breast cytology and biomarkers obtained by random fine needle aspiration have been used to identify hyperplasia with atypia and overexpression of p53 and EGFR. The polynucleotides of the invention can be used in multivariate analysis with expression studies with genes such as p53 and EGFR as risk predictors and as surrogate endpoint biomarkers for breast cancer.

As well as being used for diagnosis and risk assessment, the expression of certain genes can also correlated to prognosis of a disease state. The expression of particular gene have been used as prognostic indicators for breast cancer including increased expression of c-erbB-2, pS2, ER, progesterone receptor, epidermal growth factor receptor (EGFR), neu. myc, bcl-2, int2, cytosolic tyrosine kinase, cyclin E, prad-1, hst, uPA, PAI-1, PAI-2, cathepsin D, as well as the presence of a number of cancer-specific antigens, e.g. CEA, CA M26, CA M29 and CA 15.3. Davis, Br. J. Biomed Sci. (1996) 53:157. Poor prognosis has also been linked to a decrease in expression of certain genes, such as p53, Rb, nm23. The expression of the polynucleotides of the invention can be of prognostic value for determining the metastatic potential of a malignant breast cancer, as this molecules are differentially expressed between high and low metastatic potential tissues tumors. The levels of these polynucleotides in patients with malignant breast cancer can compared to normal tissue, malignant tissue with a known high potential metastatic level, and malignant tissue with a known lower level of metastatic potential to provide a prognosis for a particular patient. Such a prognosis is predictive of the extent and nature of the cancer. The determined prognosis is useful in determining the prognosis of a patient with breast cancer, both for initial treatment of the disease and for longer-term monitoring of the same

patient. If samples are taken from the same individual over a period of time, differences in polynucleotide expression that are specific to that patient can be identified and closely watched.

Colon Cancer. Colorectal cancer is one of the most common neoplasms in humans and perhaps the most frequent form of hereditary neoplasia. Prevention and early detection are key factors in controlling and curing colorectal cancer. Indeed, colorectal cancer is the second most preventable cancer, after lung cancer. Colorectal cancer begins as polyps, which are small, benign growths of cells that form on the inner lining of the colon. Over a period of several years, some of these polyps accumulate additional mutations and become cancerous. About 20 percent of all cases of colon cancer are thought to be related to heredity. Currently, multiple familial colorectal cancer disorders have been identified, which are summarized as follows:

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Familial adenomatous polyposis (FAP): This condition results in a person having hundreds or even thousands of polyps in the colon and rectum that usually first appear during the teenage years. Cancer nearly always develops in one or more of these polyps between the ages of 30 and 50.

Gardner's syndrome: Like FAP, Gardner's syndrome results in polyps and colorectal cancers that develop at a young age. It can also cause benign tumors of the skin, soft connective tissue and bones.

Hereditary nonpolyposis colon cancer (HNPCC): People with this condition tend to develop colorectal cancer at a young age, without first having many polyps. HNPCC has an autosomal dominant pattern of inheritance with variable but high penetrance estimated to be about 90%. HNPCC underlies 0.5%-10% of all cases of colorectal cancer. An understanding of the mechanisms behind the development of HNPCC is emerging, and genetic presymptomatic testing, now being conducted in research settings, soon will be available on a widespread basis for individuals identified at risk for this disease.

Familial colorectal cancer in Ashkenazi Jews: Recent research has found an inherited tendency to developing colorectal cancer among some Jews of Eastern European descent. Like people with FAP, Gardner's syndrome, and HNPCC, their increased risk is due to an inherited mutation present in about 6% of American Jews.

Several tests are currently used to screen for colorectal cancer, including digital rectal examination, fecal occult blood test, sigmoidoscopy, colonoscopy, virtual colonoscopy and MRI. Each of these tests identifies potential colorectal cancer lesions, or a risk of development of these lesions, at a fairly gross morphological level.

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The sequential alteration of a number of genes is associated with malignant adenocarcinoma, including the genes DCC, p53, ras, and FAP. For a review, see e.g. Fearon ER, et al., Cell (1990) 61(5):759; Hamilton SR et al., Cancer (1993) 72:957; Bodmer W, et al., Nat Genet. (1994) 4(3):217; Fearon ER, Ann N Y Acad Sci. (1995) 768:101. Molecular genetic alterations are thus promising as potential diagnostic and prognostic indicators in colorectal carcinoma and molecular genetics of colorectal carcinoma since it is possible to differentiate between different types of colorectal neoplasias using molecular markers. Colorectal cancer can thus be generally diagnosed by detection of expression of a gene or genes associated with colorectal tumors.

Similarly, the expression of polynucleotides of the invention can be used in the diagnosis, prognosis and management of colorectal cancer. The differential expression of a polynucleotide in hyperplasia can be used as a diagnostic marker for colon cancer. The polynucleotides of the invention that would be especially useful for this purpose are those that exhibit differential expression between malignant metastatic colon cancer and normal patient tissue, *i.e.* SEQ ID NOS:228, 280, 355, 491, 603, 680, 752, 753, 1241, 1264, 1401, 1442, 1514, 1851, 1915, 2024, 2066, 33, 250, 282, 370, 387, 443, 460, 545, 560, 703, 704, 1095, 1104, 1205, 1354, 1387, 1734, 1742, 1954, 2262, 2325, 1899, 252, 253, 491, 581, 693, 726, 746, 1780, 1899, 65, 252, 253, 581, 693, 716, 726, 746, 1780, 1899, and 1780. Detection of malignant colon cancer can be determined using expression levels of any of these sequences alone or in combination with the levels of expression.

Determination of the aggressive nature and/or the metastatic potential of a colon cancer can also be determined by comparing levels of one or more polynucleotides of the invention and comparing total levels of another sequence known to vary in cancerous tissue, e.g. p53 expression. In addition, development of colon cancer can be detected by examining the ratio of any of the polynucleotides of the invention to the levels of oncogenes (e.g. ras) or tumor suppressor genes (e.g. FAP or p53). Thus expression of specific marker polynucleotides can be used to discriminate between normal and cancerous

breast tissue, to discriminate between breast cancers with different cells of origin, to discriminate between breast cancers with different potential metastatic rates, etc.

G. <u>Use of Polynucleotides to Screen for Peptide Analogs and Antagonists</u>

Polypeptides encoded by the instant polynucleotides and corresponding full length genes can be used to screen peptide libraries to identify binding partners, such as receptors, from among the encoded polypeptides.

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A library of peptides can be synthesized following the methods disclosed in U.S. Pat. No. 5,010,175 ('175), and in WO 91/17823. As described below in brief, one prepares a mixture of peptides, which is then screened to identify the peptides exhibiting the desired signal transduction and receptor binding activity. In the '175 method, a suitable peptide synthesis support (e.g., a resin) is coupled to a mixture of appropriately protected, activated amino acids. The concentration of each amino acid in the reaction mixture is balanced or adjusted in inverse proportion to its coupling reaction rate so that the product is an equimolar mixture of amino acids coupled to the starting resin. The bound amino acids are then deprotected, and reacted with another balanced amino acid mixture to form an equimolar mixture of all possible dipeptides. This process is repeated until a mixture of peptides of the desired length (e.g., hexamers) is formed. Note that one need not include all amino acids in each step: one can include only one or two amino acids in some steps (e.g., where it is known that a particular amino acid is essential in a given position), thus reducing the complexity of the mixture. After the synthesis of the peptide library is completed, the mixture of peptides is screened for binding to the selected polypeptide. The peptides are then tested for their ability to inhibit or enhance activity. Peptides exhibiting the desired activity are then isolated and sequenced.

The method described in WO 91/17823 is similar. However, instead of reacting the synthesis resin with a mixture of activated amino acids, the resin is divided into twenty equal portions (or into a number of portions corresponding to the number of different amino acids to be added in that step), and each amino acid is coupled individually to its portion of resin. The resin portions are then combined, mixed, and again divided into a number of equal portions for reaction with the second amino acid. In this manner, each reaction can be easily driven to completion. Additionally, one can maintain separate "subpools" by treating portions in parallel, rather than combining all resins at each step.

This simplifies the process of determining which peptides are responsible for any observed receptor binding or signal transduction activity.

In such cases, the subpools containing, e.g., 1-2,000 candidates each are exposed to one or more polypeptides of the invention. Each subpool that produces a positive result is then resynthesized as a group of smaller subpools (sub-subpools) containing, e.g., 20-100 candidates, and reassayed. Positive sub-subpools can be resynthesized as individual compounds, and assayed finally to determine the peptides that exhibit a high binding constant. These peptides can be tested for their ability to inhibit or enhance the native activity. The methods described in WO 91/7823 and U.S. Patent No. 5,194,392 (herein incorporated by reference) enable the preparation of such pools and subpools by automated techniques in parallel, such that all synthesis and resynthesis can be performed in a matter of days.

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Peptide agonists or antagonists are screened using any available method, such as signal transduction, antibody binding, receptor binding, mitogenic assays, chemotaxis assays, etc. The methods described herein are presently preferred. The assay conditions ideally should resemble the conditions under which the native activity is exhibited *in vivo*, that is, under physiologic pH, temperature, and ionic strength. Suitable agonists or antagonists will exhibit strong inhibition or enhancement of the native activity at concentrations that do not cause toxic side effects in the subject. Agonists or antagonists that compete for binding to the native polypeptide can require concentrations equal to or greater than the native concentration, while inhibitors capable of binding irreversibly to the polypeptide can be added in concentrations on the order of the native concentration.

The end results of such screening and experimentation will be at least one novel polypeptide binding partner, such as a receptor, encoded by a gene or a cDNA corresponding to a polynucleotide of the invention, and at least one peptide agonist or antagonist of the novel binding partner. Such agonists and antagonists can be used to modulate, enhance, or inhibit receptor function in cells to which the receptor is native, or in cells that possess the receptor as a result of genetic engineering. Further, if the novel receptor shares biologically important characteristics with a known receptor, information about agonist/antagonist binding can facilitate development of improved agonists/antagonists of the known receptor.

## H. Pharmaceutical Compositions and Therapeutic Uses

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Pharmaceutical compositions can comprise polypeptides, antibodies, or polynucleotides of the claimed invention. The pharmaceutical compositions will comprise a therapeutically effective amount of either polypeptides, antibodies, or polynucleotides of the claimed invention.

The term "therapeutically effective amount" as used herein refers to an amount of a therapeutic agent to treat, ameliorate, or prevent a desired disease or condition, or to exhibit a detectable therapeutic or preventative effect. The effect can be detected by, for example, chemical markers or antigen levels. Therapeutic effects also include reduction in physical symptoms, such as decreased body temperature. The precise effective amount for a subject will depend upon the subject's size and health, the nature and extent of the condition, and the therapeutics or combination of therapeutics selected for administration. Thus, it is not useful to specify an exact effective amount in advance. However, the effective amount for a given situation is determined by routine experimentation and is within the judgment of the clinician. For purposes of the present invention, an effective dose will generally be from about 0.01 mg/kg to 50 mg/kg or 0.05 mg/kg to about 10 mg/kg of the DNA constructs in the individual to which it is administered.

A pharmaceutical composition can also contain a pharmaceutically acceptable carrier. The term "pharmaceutically acceptable carrier" refers to a carrier for administration of a therapeutic agent, such as antibodies or a polypeptide, genes, and other therapeutic agents. The term refers to any pharmaceutical carrier that does not itself induce the production of antibodies harmful to the individual receiving the composition, and which can be administered without undue toxicity. Suitable carriers can be large, slowly metabolized macromolecules such as proteins, polysaccharides, polylactic acids, polyglycolic acids, polymeric amino acids, amino acid copolymers, and inactive virus particles. Such carriers are well known to those of ordinary skill in the art.

Pharmaceutically acceptable salts can be used therein, for example, mineral acid salts such as hydrochlorides, hydrobromides, phosphates, sulfates, and the like; and the salts of organic acids such as acetates, propionates, malonates, benzoates, and the like. A thorough discussion of pharmaceutically acceptable excipients is available in *Remington's Pharmaceutical Sciences* (Mack Pub. Co., N.J. 1991).

Pharmaceutically acceptable carriers in therapeutic compositions can include liquids such as water, saline, glycerol and ethanol. Auxiliary substances, such as wetting or emulsifying agents, pH buffering substances, and the like, can also be present in such vehicles. Typically, the therapeutic compositions are prepared as injectables, either as liquid solutions or suspensions; solid forms suitable for solution in, or suspension in, liquid vehicles prior to injection can also be prepared. Liposomes are included within the definition of a pharmaceutically acceptable carrier.

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Delivery Methods. Once formulated, the compositions of the invention can be (1) administered directly to the subject (e.g., as polynucleotide or polypeptides); (2) delivered ex vivo, to cells derived from the subject (e.g., as in ex vivo gene therapy); or (3) delivered in vitro for expression of recombinant proteins (e.g., polynucleotides). Direct delivery of the compositions will generally be accomplished by injection, either subcutaneously, intraperitoneally, intravenously or intramuscularly, or delivered to the interstitial space of a tissue. The compositions can also be administered into a tumor or lesion. Other modes of administration include oral and pulmonary administration, suppositories, and transdermal applications, needles, and gene guns or hyposprays. Dosage treatment can be a single dose schedule or a multiple dose schedule.

Methods for the ex vivo delivery and reimplantation of transformed cells into a subject are known in the art and described in *e.g.*, International Publication No. WO 93/14778. Examples of cells useful in ex vivo applications include, for example, stem cells, particularly hematopoetic, lymph cells, macrophages, dendritic cells, or tumor cells. Generally, delivery of nucleic acids for both ex vivo and in vitro applications can be accomplished by, for example, dextran-mediated transfection, calcium phosphate precipitation, polybrene mediated transfection, protoplast fusion, electroporation, encapsulation of the polynucleotide(s) in liposomes, and direct microinjection of the DNA into nuclei, all well known in the art.

Once a gene corresponding to a polynucleotide of the invention has been found to correlate with a proliferative disorder, such as neoplasia, dysplasia, and hyperplasia, the disorder can be amenable to treatment by administration of a therapeutic agent based on the provided polynucleotide or corresponding polypeptide.

Preparation of antisense polynucleotides is discussed above. Neoplasias that are treated with the antisense composition include, but are not limited to, cervical cancers, melanomas, colorectal adenocarcinomas, Wilms' tumor, retinoblastoma, sarcomas, myosarcomas, lung carcinomas, leukemias, such as chronic myelogenous leukemia, promyelocytic leukemia, monocytic leukemia, and myeloid leukemia, and lymphomas, such as histiocytic lymphoma. Proliferative disorders that are treated with the therapeutic composition include disorders such as anhydric hereditary ectodermal dysplasia, congenital alveolar dysplasia, epithelial dysplasia of the cervix, fibrous dysplasia of bone, and mammary dysplasia. Hyperplasias, for example, endometrial, adrenal, breast, prostate, or thyroid hyperplasias or pseudoepitheliomatous hyperplasia of the skin, are treated with antisense therapeutic compositions based upon a polynucleotide of the invention. Even in disorders in which mutations in the corresponding gene are not implicated, downregulation or inhibition of expression of a gene corresponding to a polynucleotide of the invention can have therapeutic application. For example, decreasing gene expression can help to suppress tumors in which enhanced expression of the gene is implicated.

Both the dose of the antisense composition and the means of administration are determined based on the specific qualities of the therapeutic composition, the condition, age, and weight of the patient, the progression of the disease, and other relevant factors. Administration of the therapeutic antisense agents of the invention includes local or systemic administration, including injection, oral administration, particle gun or catheterized administration, and topical administration. Preferably, the therapeutic antisense composition contains an expression construct comprising a promoter and a polynucleotide segment of at least 12, 22, 25, 30, or 35 contiguous nucleotides of the antisense strand of a polynucleotide disclosed herein. Within the expression construct, the polynucleotide segment is located downstream from the promoter, and transcription of the polynucleotide segment initiates at the promoter.

Various methods are used to administer the therapeutic composition directly to a specific site in the body. For example, a small metastatic lesion is located and the therapeutic composition injected several times in several different locations within the body of tumor. Alternatively, arteries which serve a tumor are identified, and the therapeutic composition injected into such an artery, in order to deliver the composition directly into

the tumor. A tumor that has a necrotic center is aspirated and the composition injected directly into the now empty center of the tumor. The antisense composition is directly administered to the surface of the tumor, for example, by topical application of the composition. X-ray imaging is used to assist in certain of the above delivery methods.

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Receptor-mediated targeted delivery of therapeutic compositions containing an antisense polynucleotide, subgenomic polynucleotides, or antibodies to specific tissues is also used. Receptor-mediated DNA delivery techniques are described in, for example, Findeis et al., Trends Biotechnol. (1993) 11:202; Chiou et al., Gene Therapeutics: Methods And Applications Of Direct Gene Transfer (J.A. Wolff, ed.) (1994); Wu et al., J. Biol. Chem. (1988) 263:621; Wu et al., J. Biol. Chem. (1994) 269:542; Zenke et al., Proc. Natl. Acad. Sci. (USA) (1990) 87:3655; Wu et al., J. Biol. Chem. (1991) 266:338. Preferably, receptor-mediated targeted delivery of therapeutic compositions containing antibodies of the invention is used to deliver the antibodies to specific tissue.

Therapeutic compositions containing antisense subgenomic polynucleotides are administered in a range of about 100 ng to about 200 mg of DNA for local administration in a gene therapy protocol. Concentration ranges of about 500 ng to about 50 mg, about 1 µg to about 2 mg, about 5 µg to about 500 µg, and about 20 µg to about 100 µg of DNA can also be used during a gene therapy protocol. Factors such as method of action and efficacy of transformation and expression are considerations which will affect the dosage required for ultimate efficacy of the antisense subgenomic polynucleotides. Where greater expression is desired over a larger area of tissue, larger amounts of antisense subgenomic polynucleotides or the same amounts readministered in a successive protocol of administrations, or several administrations to different adjacent or close tissue portions of, for example, a tumor site, may be required to effect a positive therapeutic outcome. In all cases, routine experimentation in clinical trials will determine specific ranges for optimal therapeutic effect. A more complete description of gene therapy vectors, especially retroviral vectors, is contained in U.S. Serial No. 08/869,309, which is expressly incorporated herein, and in section G below.

For polynucleotide-related genes encoding polypeptides or proteins with antiinflammatory activity, suitable use, doses, and administration are described in U.S. Patent No. 5,654,173. Therapeutic agents also include antibodies to proteins and polypeptides

encoded by the polynucleotides of the invention and related genes, as described in U.S. Patent No. 5,654,173.

## I. Gene Therapy

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The therapeutic polynucleotides and polypeptides of the present invention can be utilized in gene delivery vehicles. The gene delivery vehicle can be of viral or non-viral origin (see generally, Jolly, Cancer Gene Therapy (1994) 1:51; Kimura, Human Gene Therapy (1994) 5:845; Connelly, Human Gene Therapy (1995) 1:185; and Kaplitt, Nature Genetics (1994) 6:148). Gene therapy vehicles for delivery of constructs including a coding sequence of a therapeutic of the invention can be administered either locally or systemically. These constructs can utilize viral or non-viral vector approaches. Expression of such coding sequences can be induced using endogenous mammalian or heterologous promoters. Expression of the coding sequence can be either constitutive or regulated.

The present invention can employ recombinant retroviruses which are constructed to carry or express a selected nucleic acid molecule of interest. Retrovirus vectors that can be employed include those described in EP 0 415 731; WO 90/07936; WO 94/03622; WO 93/25698; WO 93/25234; U.S. Patent No. 5, 219,740; WO 93/11230; WO 93/10218; Vile and Hart, Cancer Res. (1993) 53:3860; Vile et al., Cancer Res. (1993) 53:962; Ram et al., Cancer Res. (1993) 53:83; Takamiya et al., J. Neurosci. Res. (1992) 33:493; Baba et al., J. Neurosurg. (1993) 79:729; U.S. Patent No. 4,777,127; GB Patent No. 2,200,651; and EP 0 345 242. Preferred recombinant retroviruses include those described in WO 91/02805.

Packaging cell lines suitable for use with the above-described retroviral vector constructs can be readily prepared (see, e.g., WO 95/30763 and WO 92/05266), and used to create producer cell lines (also termed vector cell lines) for the production of recombinant vector particles. Within particularly preferred embodiments of the invention, packaging cell lines are made from human (such as HT1080 cells) or mink parent cell lines, thereby allowing production of recombinant retroviruses that can survive inactivation in human serum.

The present invention also employs alphavirus-based vectors that can function as gene delivery vehicles. Such vectors can be constructed from a wide variety of alphaviruses, including, for example, Sindbis virus vectors, Semliki forest virus (ATCC VR-67; ATCC VR-1247), Ross River virus (ATCC VR-373; ATCC VR-1246) and

Venezuelan equine encephalitis virus (ATCC VR-923; ATCC VR-1250; ATCC VR 1249; ATCC VR-532). Representative examples of such vector systems include those described in U.S. Patent Nos. 5,091,309; 5,217,879; and 5,185,440; WO 92/10578; WO 94/21792; WO 95/27069; WO 95/27044; and WO 95/07994. Gene delivery vehicles of the present invention can also employ parvovirus such as adeno-associated virus (AAV) vectors. Representative examples include the AAV vectors disclosed by Srivastava in WO 93/09239, Samulski et al., *J. Virol.* (1989) 63:3822; Mendelson et al., *Virol.* (1988) 166:154; and Flotte et al., PNAS (1993) 90:10613.

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Representative examples of adenoviral vectors include those described by Berkner,

Biotechniques (1988) 6:616; Rosenfeld et al., Science (1991) 252:431; WO 93/19191;

Kolls et al., PNAS (1994) 91:215; Kass-Eisler et al., PNAS (1993) 90:11498; Guzman et al., Circulation (1993) 88:2838; Guzman et al., Cir. Res. (1993) 73:1202; Zabner et al., Cell (1993) 75:207; Li et al., Hum. Gene Ther. (1993) 4:403; Cailaud et al., Eur. J. Neurosci. (1993) 5:1287; Vincent et al., Nat. Genet. (1993) 5:130; Jaffe et al., Nat. Genet. (1992) 1:372; and Levrero et al., Gene (1991) 101:195. Exemplary adenoviral gene therapy vectors employable in this invention also include those described in WO 94/12649, WO 93/03769; WO 93/19191; WO 94/28938; WO 95/11984 and WO 95/00655.

Administration of DNA linked to killed adenovirus as described in Curiel, Hum. Gene Ther. (1992) 3:147 can be employed.

Other gene delivery vehicles and methods can be employed, including polycationic condensed DNA linked or unlinked to killed adenovirus alone, for example Curiel, *Hum. Gene Ther.* (1992) 3:147; ligand linked DNA, for example see Wu, *J. Biol. Chem.* (1989) 264:16985; eukaryotic cell delivery vehicles cells, for example see U.S. Pat. No. 5,814,482; WO 95/07994; WO 96/17072; WO 95/30763; and WO 97/42338; deposition of photopolymerized hydrogel materials; hand-held gene transfer particle gun, as described in U.S. Patent No. 5,149,655; ionizing radiation as described in U.S. Patent No. 5,206,152 and in WO92/11033; nucleic charge neutralization or fusion with cell membranes. Additional approaches are described in Philip, *Mol. Cell Biol.* (1994) 14:2411, and in Woffendin, *Proc. Natl. Acad. Sci.* (1994) 91:1581.

Naked DNA can also be employed. Exemplary naked DNA introduction methods are described in WO 90/11092 and U.S. Patent No. 5,580,859. Liposomes that can act as

gene delivery vehicles are described in U.S. Patent No. 5,422,120; WO 95/13796; WO 94/23697; WO 91/14445; and EP 0524968.

Further non-viral delivery suitable for use includes mechanical delivery systems such as the approach described in Woffendin *et al.*, *Proc. Natl. Acad. Sci. USA* (1994) 91(24):11581. Moreover, the coding sequence and the product of expression of such can be delivered through deposition of photopolymerized hydrogel materials. Other conventional methods for gene delivery that can be used for delivery of the coding sequence include, for example, use of hand-held gene transfer particle gun, as described in U.S. Patent No. 5,149,655; use of ionizing radiation for activating transferred gene, as described in U.S. Patent No. 5,206,152 and WO 92/11033.

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The present invention will now be illustrated by reference to the following examples which set forth particularly advantageous embodiments. However, it should be noted that these embodiments are illustrative and are not to be construed as restricting the invention in any way.

## **EXAMPLES**

Example 1: Source of Biological Materials and Overview of Novel Polynucleotides

Expressed by the Biological Materials

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Human colon cancer cell line Km12L4-A (Morika, W. A. K. et al., Cancer Research (1988) 48:6863) was used to construct a cDNA library from mRNA isolated from the cells. As described in the above overview, a total of 4,693 sequences expressed by the Km12L4-A cell line were isolated and analyzed; most sequences were about 275-300 nucleotides in length. The KM12L4-A cell line is derived from the KM12C cell line. The KM12C cell line, which is poorly metastatic (low metastatic) was established in culture from a Dukes' stage B2 surgical specimen (Morikawa et al. Cancer Res. (1988) 48:6863). The KML4-A is a highly metastatic subline derived from KM12C (Yeatman et al. Nucl. Acids. Res. (1995) 23:4007; Bao-Ling et al. Proc. Annu. Meet. Am. Assoc. Cancer. Res. (1995) 21:3269). The KM12C and KM12C-derived cell lines (e.g., KM12L4, KM12L4-A, etc.) are well-recognized in the art as a model cell line for the study of colon cancer (see, e.g., Moriakawa et al., supra; Radinsky et al. Clin. Cancer Res. (1995) 1:19; Yeatman et al., (1995) supra; Yeatman et al. Clin. Exp. Metastasis (1996) 14:246).

The sequences were first masked to eliminate low complexity sequences using the XBLAST masking program (Claverie "Effective Large-Scale Sequence Similarity Searches," In: Computer Methods for Macromolecular Sequence Analysis, Doolittle, ed., Meth. Enzymol. 266:212-227 Academic Press, NY, NY (1996); see particularly Claverie, in "Automated DNA Sequencing and Analysis Techniques" Adams et al., eds., Chap. 36, p. 267 Academic Press, San Diego, 1994 and Claverie et al. Comput. Chem. (1993) 17:191 ). Generally, masking does not influence the final search results, except to eliminate sequences of relative little interest due to their low complexity, and to eliminate multiple "hits" based on similarity to repetitive regions common to multiple sequences, e.g., Alu repeats. Masking resulted in the elimination of 43 sequences. The remaining sequences were then used in a BLASTN vs. Genbank search with search parameters of greater than 70% overlap, 99% identity, and a p value of less than 1 x 10<sup>-40</sup>, which search resulted in the discarding of 1,432 sequences. Sequences from this search also were discarded if the inclusive parameters were met, but the sequence was ribosomal or vector-derived.

The resulting sequences from the previous search were classified into three groups (1, 2 and 3 below) and searched in a BLASTX vs. NRP (non-redundant proteins) database

search: (1) unknown (no hits in the Genbank search), (2) weak similarity (greater than 45% identity and p value of less than  $1 \times 10^{-5}$ ), and (3) high similarity (greater than 60% overlap, greater than 80% identity, and p value less than  $1 \times 10^{-5}$ ). This search resulted in discard of 98 sequences as having greater than 70% overlap, greater than 99% identity, and p value of less than  $1 \times 10^{-40}$ .

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The remaining sequences were classified as unknown (no hits), weak similarity, and high similarity (parameters as above). Two searches were performed on these sequences. First, a BLAST vs. EST database search resulted in discard of 1771 sequences (sequences with greater than 99% overlap, greater than 99% similarity and a p value of less than 1 x  $10^{-40}$ ; sequences with a p value of less than 1 x  $10^{-65}$  when compared to a database sequence of human origin were also excluded). Second, a BLASTN vs. Patent GeneSeq database resulted in discard of 15 sequences (greater than 99% identity; p value less than 1 x  $10^{-40}$ ; greater than 99% overlap).

The remaining sequences were subjected to screening using other rules and

redundancies in the dataset. Sequences with a p value of less than 1 x 10<sup>-111</sup> in relation to
a database sequence of human origin were specifically excluded. The final result provided
the 2502 sequences listed in the accompanying Sequence Listing. The Sequence Listing is
arranged beginning with sequences with no similarity to any sequence in a database
searched, and ending with sequences with the greatest similarity. Each identified

polynucleotide represents sequence from at least a partial mRNA transcript.

Polynucleotides that were determined to be novel were assigned a sequence identification
number.

The novel polynucleotides were assigned sequence identification numbers SEQ ID NOS:1-2502. The DNA sequences corresponding to the novel polynucleotides are provided in the Sequence Listing. The majority of the sequences are presented in the Sequence Listing in the 5' to 3' direction. A small number of sequences are listed in the Sequence Listing in the 5' to 3' direction but the sequence as written is actually 3' to 5'. These sequences are readily identified with the designation "AR" in the Sequence Name in Table 1 (inserted before the claims). The sequences correctly listed in the 5' to 3' direction in the Sequence Listing are designated "AF." Table 1 provides: 1) the SEQ ID NO assigned to each sequence for use in the present specification; 2) the filing date of the U.S. priority application in which the sequence was first filed; 3) the SEQ ID NO assigned to the sequence in the priority application; 4) the sequence name used as an internal identifier of

the sequence; 5) the name assigned to the clone from which the sequence was isolated; and 6) the number of the cluster to which the sequence is assigned (Cluster ID; where the cluster ID is 0, the sequence was not assigned to any cluster

Because the provided polynucleotides represent partial mRNA transcripts, two or more polynucleotides of the invention may represent different regions of the same mRNA transcript and the same gene. Thus, if two or more SEQ ID NOS: are identified as belonging to the same clone, then either sequence can be used to obtain the full-length mRNA or gene. In addition, some sequences are identified with multiple SEQ ID NOS, since these sequences were present in more than one filing. For example, SEQ ID NO:87 and SEQ ID NO:1000 represent the same sequence.

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In order to confirm the sequences of SEQ ID NOS:1-2502, inserts of the clones corresponding to these polynucleotides were re-sequenced. These "validation" sequences are provided in SEQ ID NOS:2503-5106. Of these validation sequences, SEQ ID NOS:3040, 3545, 3863, 4511, 4726, and 4749 are not true validation sequences. Instead, SEQ ID NOS:3545, 4511, 4726, and 4749 represent "placeholder" sequences, *i.e.*, sequences that were inserted into the Sequence Listing only to prevent renumbering of the subsequent sequences during generation of the Sequence Listing. Thus, reference to "SEQ ID NOS:1-5252," "SEQ ID NOS:1-5106," or other ranges of SEQ ID NOS that include these placeholder sequences should be read to exclude SEQ ID NOS:3545, 4511, 4726, and 4749.

The validation sequences were often longer than the original polynucleotide sequences they validate, and thus often provide additional sequence information. Validation sequences can be correlated with the original sequences they validate by referring to Table 1. For example, validation sequences of SEQ ID NOS:2503-3039, 3041-3544, 3546-3862 3864-4510, and 4512-4725 share the clone name of the sequence of SEQ ID NOS:1-2502 that they validate.

Example 2: Results of Public Database Search to Identify Function of Gene Products

SEQ ID NOS:1-2502, as well as the validation sequences SEQ ID NOS:2503-3039,
3041-3544, 3546-3862 3864-4510, and 4512-4725 xx:clf were translated in all three reading frames to determine the best alignment with the individual sequences. These amino acid sequences and nucleotide sequences are referred, generally, as query sequences, which are aligned with the individual sequences. Ouery and individual sequences were

aligned using the BLAST programs, available over the world wide web at <a href="http://www.ncbi.nlm.nih.gov/BLAST/">http://www.ncbi.nlm.nih.gov/BLAST/</a>. Again the sequences were masked to various extents to prevent searching of repetitive sequences or poly-A sequences, using the XBLAST program for masking low complexity as described above in Example 1.

Table 2 (inserted before the claims) shows the results of the alignments. Table 2 refers to each sequence by its SEQ ID NO:, the accession numbers and descriptions of nearest neighbors from the Genbank and Non-Redundant Protein searches, and the p values of the search results.

For each of "SEQ ID NOS:1-5106," the best alignment to a protein or DNA sequence is included in Table 2. The activity of the polypeptide encoded by "SEQ ID NOS:1-5106" is the same or similar to the nearest neighbor reported in Table 2. The accession number of the nearest neighbor is reported, providing a reference to the activities exhibited by the nearest neighbor. The search program and database used for the alignment also are indicated as well as a calculation of the p value.

Full length sequences or fragments of the polynucleotide sequences of the nearest neighbors can be used as probes and primers to identify and isolate the full length sequence of "SEQ ID NOS:1-5106." The nearest neighbors can indicate a tissue or cell type to be used to construct a library for the full-length sequences of "SEQ ID NOS:1-5106."

"SEQ ID NOS:1-5106" and the translations thereof may be human homologs of
known genes of other species or novel allelic variants of known human genes. In such cases, these new human sequences are suitable as diagnostics or therapeutics. As diagnostics, the human sequences "SEQ ID NOS:1-5106" exhibit greater specificity in detecting and differentiating human cell lines and types than homologs of other species. The human polypeptides encoded by "SEQ ID NOS1-5106" are likely to be less
immunogenic when administered to humans than homologs from other species. Further, on administration to humans, the polypeptides encoded by "SEQ ID NOS:1-5106" can show greater specificity or can be better regulated by other human proteins than are homologs from other species.

## 30 Example 3: Members of Protein Families

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The validation sequences ("SEQ ID NOS:2503-5106") were used to conduct a profile search as described in the specification above. Several of the polynucleotides of the invention were found to encode polypeptides having characteristics of a polypeptide

belonging to a known protein families (and thus represent new members of these protein families) and/or comprising a known functional domain (Table 3, inserted prior to claims). Thus the invention encompasses fragments, fusions, and variants of such polynucleotides that retain biological activity associated with the protein family and/or functional domain identified herein.

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Start and stop indicate the position within the individual sequences that align with the query sequence having the indicated SEQ ID NO. The direction (Dir) indicates the orientation of the query sequence with respect to the individual sequence, where forward (for) indicates that the alignment is in the same direction (left to right) as the sequence provided in the Sequence Listing and reverse (rev) indicates that the alignment is with a sequence complementary to the sequence provided in the Sequence Listing.

Some polynucleotides exhibited multiple profile hits because, for example, the particular sequence contains overlapping profile regions, and/or the sequence contains two different functional domains. These profile hits are described in more detail below. The acronyms used in Table 3 are provided in parentheses following the full name of the protein family or functional domain to which they refer.

a) Seven Transmembrane Integral Membrane Proteins -- Rhodopsin Family (7tm 1). Several of the validation sequences, and thus their corresponding sequence within SEQ ID NOS:1-2502, correspond to a sequence encoding a polypeptide that is a member of 20 the seven transmembrane receptor rhodopsin family. G-protein coupled receptors of the seven transmembrane rhodopsin family (also called R7G) are an extensive group of hormones, neurotransmitters, and light receptors which transduce extracellular signals by interaction with guanine nucleotide-binding (G) proteins (Strosberg A.D. Eur. J. Biochem. (1991) 196:1, Kerlavage A.R. Curr. Opin. Struct. Biol. (1991) 1:394, Probst, et al., DNA 25 Cell Biol. (1992) 11:1, Savarese, et al., Biochem. J. (1992) 283:1, http://www.gcrdb.uthscsa.edu/, http://swift.embl-heidelberg.de/7tm/. The receptors that are currently known to belong to this family are: 1) 5-hydroxytryptamine (serotonin) 1A to 1F, 2A to 2C, 4, 5A, 5B, 6 and 7 (Branchek T., Curr. Biol. (1993) 3:315); 2) acetylcholine, muscarinic-type, M1 to M5; 3) adenosine A1, A2A, A2B and A3 (Stiles G.L. J. Biol. 30 Chem. (1992) 267:6451; 4) adrenergic alpha-1A to -1C; alpha-2A to -2D; beta-1 to -3 (Friell T. et al., Trends Neurosci. (1988) 11:321); 5) angiotensin II types I and II; 6) bombesin subtypes 3 and 4; 7) bradykinin B1 and B2; 8) c3a and C5a anaphylatoxin;

9) cannabinoid CB1 and CB2; 10) chemokines C-C CC-CKR-1 to CC-CKR-8; 11)

Chemokines C-X-C CXC-CKR-1 to CXC-CKR-4; 12) Cholecystokinin-A and cholecystokinin-B/gastrin Dopamine D1 to D5 (Stevens C.F., Curr. Biol. (1991) 1:20); 13) Endothelin ET-a and ET-b (Sakurai T. et al., Trends Pharmacol. Sci. (1992) 13:103-107); 14) fMet-Leu-Phe (fMLP) (Nformyl peptide); 15) Follicle stimulating hormone (FSH-R); 16) Galanin; 17) Gastrin-releasing peptide (GRP-R); 18) Gonadotropin-releasing hormone 5 (GNRH-R); 19) Histamine H1 and H2 (gastric receptor I); 20) Lutropinchoriogonadotropic hormone (LSH-R) (Salesse R., et al., Biochimie (1991) 73:109); 21) Melanocortin MC1R to MC5R; 22) Melatonin; 23) Neuromedin B (NMB-R); 24) Neuromedin K (NK-3R); 25) Neuropeptide Y types 1 to 6; 26) Neurotensin (NT-R); 27) Octopamine (tyramine), from insects; 28) Odorants (Lancet D., et al., Curr. Biol. 10 (1993)3:668; 29) Opioids delta-, kappa- and mu-types (Uhl G.R., et al., Trends Neurosci. (1994) 17:89; 30) Oxytocin (OT-R); 31) Platelet activating factor (PAF-R); 32) Prostacyclin; 33) Prostaglandin D2; 34) Prostaglandin E2, EP1 to EP4 subtypes; 35) Prostaglandin F2; 36) Purinoreceptors (ATP) (Barnard E.A., et al., Trends Pharmacol. Sci. (1994)15:67; 37); Somatostatin types 1 to 5; 38) Substance-K (NK-2R); Substance-P (NK-15 1R); 39) Thrombin; 40) Thromboxane A2; 41) Thyrotropin (TSH-R) (Salesse R., et al., Biochimie (1991) 73:109); 42) Thyrotropin releasing factor (TRH-R); 42) Vasopressin V1a, V1b and V2; 43) Visual pigments (opsins and rhodopsin) (Applebury M.L., et al., Vision Res. (1986) 26:1881; 44) Proto-oncogene mas; 45) A number of orphan receptors (whose ligand is not known) from mammals and birds; 46) Caenorhabditis elegans putative 20 receptors C06G4.5, C38C10.1, C43C3.2; 47) T27D1.3 and ZC84.4; 48) Three putative receptors encoded in the genome of cytomegalovirus: US27, US28, and UL33; and 49) ECRF3, a putative receptor encoded in the genome of herpesvirus saimiri.

25 hydrophobic regions, each of which most probably spans the membrane. The N-terminus is located on the extracellular side of the membrane and is often glycosylated, while the C-terminus is cytoplasmic and generally phosphorylated. Three extracellular loops alternate with three intracellular loops to link the seven transmembrane regions. Most, but not all of these receptors, lack a signal peptide. The most conserved parts of these proteins are the transmembrane regions and the first two cytoplasmic loops. A conserved acidic-Argaromatic triplet is present in the N-terminal extremity of the second cytoplasmic loop (Attwood T.K., Eliopoulos E.E., Findlay J.B.C. Gene (1991) 98:153-159) and could be implicated in the interaction with G proteins.

A consensus pattern that contains the conserved triplet and that also spans the major part of the third transmembrane helix is used to detect this widespread family of proteins: [GSTALIVMFYWC]-[GSTANCPDE]-{EDPKRH}-x(2)-[LIVMNQGA]-x(2)- [LIVMFT]-[GSTANC]-[DENH]-R-[FYWCSH]-x(2)- [LIVM].

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- b) Several of the validation sequences, and thus their corresponding sequence within SEQ ID NOS:1-2502, correspond to a sequence encoding a polypeptide that is a member of the seven transmembrane receptor secretin family. A number of peptide hormones bind to G-protein coupled receptors that, while structurally similar to the majority of G-protein coupled receptors (R7G) (see profile for 7 transmembrane receptors (rhodopsin family), do not show any similarity at the level of their sequence, thus new family whose current known members (Jueppner et al. *Science* (1991) 254:1024; Hamann et al. *Genomics* (1996) 32:144).are: 1) calcitonin receptor, 2) calcitonin gene-related peptide receptor; 3) corticotropin releasing factor receptor types 1 and 2; 4) gastric inhibitory polypeptide receptor; 5) glucagon receptor; 6) glucagon-like peptide 1 receptor; 7) growth hormone-releasing hormone receptor; 7) parathyroid hormone / parathyroid hormone-related peptide types 1 and 2; 8) pituitary adenylate cyclase activating polypeptide receptor; 9) secretin receptor; 10) vasoactive intestinal peptide receptor types 1 and 2; 10) insects diuretic hormone receptor; 11) Caenorhabditis elegans putative receptor C13B9.4;
- 20 12) Caenorhabditis elegans putative receptor ZK643.3; 13) human leucocyte CD97 (which contains 3 EGF-like domains in its N-terminal section); 14) human cell surface glycoprotein EMR1 (which contains 6 EGF-like domains in it N-terminal section); and 15) mouse cell surface glycoprotein F4/80 (which contains 7 EGF-like domains in its N-terminal section). All of 1) through 10) are coupled to G-proteins which activate both adenylyl cyclase and the phosphatidylinositol-calcium pathway.

Like classical R7G the secretin family of 7 transmembrane proteins contain seven transmembrane regions. Their N-terminus is located on the extracellular side of the membrane and potentially glycosylated, while their C-terminus is cytoplasmic. But apart from these topological similarities they do not share any region of sequence similarity and are therefore probably not evolutionary related.

Every receptor in the 7 transmember secretin family is encoded on multiple exons, and several of these functionally distinct products. The N-terminal extracellular domain of these receptors contains five conserved cysteines residues that may be involved in disulfide

bonds, with a consensus pattern in the region that spans the first three cysteines. One of the most highly conserved regions spans the C-terminal part of the last transmembrane region and the beginning of the adjacent intracellular region. This second region is used as a second signature pattern. The two consensus patterns are:

1) C-x(3)-[FYWLIV]-D-x(3,4)-C-[FW]-x(2)-[STAGV]-x(8,9)-C-[PF]
 2) Q-G-[LMFCA]-[LIVMFT]-[LIV]-x-[LIVFST]-[LIF]-[VFYH]-C- [LFY]-x-N-x(2)-V

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- c) Ank Repeats (ANK). SEQ IS NO:2656, and thus its corresponding sequence within SEQ ID NOS:1-2502, represents a polynucleotide encoding an Ank repeat-containing protein. The ankyrin motif is a 33 amino acid sequence named after the protein ankyrin which has 24 tandem 33-amino-acid motifs. Ank repeats were originally identified in the cell-cycle-control protein cdc10 (Breeden et al., Nature (1987) 329:651). Proteins containing ankyrin repeats include ankyrin, myotropin, I-kappaB proteins, cell cycle protein cdc10, the Notch receptor (Matsuno et al., Development (1997) 124(21):4265); G9a (or BAT8) of the class III region of the major histocompatibility complex (Biochem J. 290:811-818, 1993), FABP, GABP, 53BP2, Lin12, glp-1, SW14, and SW16. The functions of the ankyrin repeats are compatible with a role in protein-protein interactions (Bork, Proteins (1993) 17(4):363; Lambert and Bennet, Eur. J. Biochem. (1993) 211:1; Kerr et al., Current Op. Cell Biol. (1992) 4:496; Bennet et al., J. Biol. Chem. (1980) 255:6424).
- The 90 kD N-terminal domain of ankyrin contains a series of 24 33-amino-acid ank repeats. (Lux et al., Nature (1990) 344:36-42, Lambert et al., PNAS USA (1990) 87:1730.) The 24 ank repeats form four folded subdomains of 6 repeats each. These four repeat subdomains mediate interactions with at least 7 different families of membrane proteins. Ankyrin contains two separate binding sites for anion exchanger dimers. One site utilizes repeat subdomain two (repeats 7-12) and the other requires both repeat subdomains 3 and 4 (repeats 13-24). Since the anion exchangers exist in dimers, ankyrin binds 4 anion exchangers at the same time (Michaely and Bennett, J. Biol. Chem. (1995) 270(37):22050). The repeat motifs are involved in ankyrin interaction with tubulin, spectrin, and other membrane proteins. (Lux et al., Nature (1990) 344:36.)
  - The Rel/NF-kappaB/Dorsal family of transcription factors have activity that is controlled by sequestration in the cytoplasm in association with inhibitory proteins referred to as I-kappaB. (Gilmore, Cell (1990) 62:841; Nolan and Baltimore, Curr Opin Genet Dev. (1992) 2:211; Baeuerle, Biochim Biophys Acta (1991) 1072:63; Schmitz et al., Trends Cell

Biol. (1991) 1:130.) I-kappaB proteins contain 5 to 8 copies of 33 amino acid ankyrin repeats and certain NF-kappaB/rel proteins are also regulated by cis-acting ankyrin repeat containing domains including p105NF-kappaB which contains a series of ankyrin repeats (Diehl and Hannink, J. Virol. (1993) 67(12):7161). The I-kappaBs and Cactus (also containing ankyrin repeats) inhibit activators through differential interactions with the Relhomology domain. The gene family includes proto-oncogenes, thus broadly implicating I-kappaB in the control of both normal gene expression and the aberrant gene expression that makes cells cancerous. (Nolan and Baltimore, Curr Opin Genet Dev. (1992) 2(2):211-220). In the case of rel/NF-kappaB and pp40/I-kappaB(, both the ankyrin repeats and the carboxy-terminal domain are required for inhibiting DNA-binding activity and direct association of pp40/I-kappaB( with rel/NF-kappaB protein. The ankyrin repeats and the carboxy-terminal of pp40/I-kappaB( form a structure that associates with the rel homology domain to inhibit DNA binding activity (Inoue et al., PNAS USA (1992) 89:4333).

The 4 ankyrin repeats in the amino terminus of the transcription factor subunit GABP—are required for its interaction with the GABP—subunit to form a functional high affinity DNA-binding protein. These repeats can be crosslinked to DNA when GABP is bound to its target sequence. (Thompson et al., Science (1991) 253:762; LaMarco et al., Science (1991) 253:789). Myotrophin, a 12.5 kDa protein having a key role in the initiation of cardiac hypertrophy, comprises ankyrin repeats. The ankyrin repeats are characteristic of a hairpin-like protruding tip followed by a helix-turn-helix motif. The V-shaped helix-turn-helix of the repeats stack sequentially in bundles and are stabilized by compact hydrophobic cores, whereas the protruding tips are less ordered.

d) Eukaryotic Aspartyl Proteases (asp). Several of the validation sequences, and thus their corresponding sequence within SEQ ID NOS:1-2502, correspond to a sequence encoding a novel eukaryotic aspartyl protease. Aspartyl proteases, known as acid proteases, (EC 3.4.23.-) are a widely distributed family of proteolytic enzymes (Foltmann B., Essays Biochem. (1981) 17:52; Davies D.R., Annu. Rev. Biophys. Chem. (1990) 19:189; Rao J.K.M., et al., Biochemistry (1991) 30:4663) known to exist in vertebrates, fungi, plants, retroviruses and some plant viruses. Aspartate proteases of eukaryotes are monomeric enzymes which consist of two domains. Each domain contains an active site centered on a catalytic aspartyl residue. The two domains most probably evolved from the duplication of an ancestral gene encoding a primordial domain. Currently known eukaryotic aspartyl proteases include: 1) Vertebrate gastric pepsins A and C (also known as

gastricsin); 2) Vertebrate chymosin (rennin), involved in digestion and used for making cheese; 3) Vertebrate lysosomal cathepsins D (EC 3.4.23.5) and E (EC 3.4.23.34); 4) Mammalian renin (EC 3.4.23.15) whose function is to generate angiotensin I from angiotensinogen in the plasma; 5) Fungal proteases such as aspergillopepsin A (EC 3.4.23.18), candidapepsin (EC 3.4.23.24), mucoropepsin (EC 3.4.23.23) (mucor rennin), endothiapepsin (EC 3.4.23.22), polyporopepsin (EC 3.4.23.29), and rhizopuspepsin (EC 3.4.23.21); and 6) Yeast saccharopepsin (EC 3.4.23.25) (proteinase A) (gene PEP4). PEP4 is implicated in posttranslational regulation of vacuolar hydrolases; 7) Yeast barrierpepsin (EC 3.4.23.35) (gene BAR1); a protease that cleaves alpha-factor and thus acts as an antagonist of the mating pheromone; and 8) Fission yeast sxa1 which is involved in degrading or processing the mating pheromones.

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Most retroviruses and some plant viruses, such as badnaviruses, encode for an aspartyl protease which is an homodimer of a chain of about 95 to 125 amino acids. In most retroviruses, the protease is encoded as a segment of a polyprotein which is cleaved during the maturation process of the virus. It is generally part of the pol polyprotein and, more rarely, of the gag polyprotein. Because the sequence around the two aspartates of eukaryotic aspartyl proteases and around the single active site of the viral proteases is conserved, a single signature pattern can be used to identify members of both groups of proteases. The consensus pattern is: [LIVMFGAC]-[LIVMTADN]-[LIVFSA]-D-[ST]-G-[STAV]-[STAPDENQ]- x-[LIVMFSTNC]-x-[LIVMFGTA], where D is the active site residue.

e) ATPases Associated with Various Cellular Activities (ATPases). Several of the validation sequences, and thus their corresponding sequence within SEQ ID NOS:1-2502, correspond to a sequence that encodes a novel member of the "ATPases Associated with diverse cellular Activities" (AAA) protein family. The AAA protein family is composed of a large number of ATPases that share a conserved region of about 220 amino acids that contains an ATP-binding site (Froehlich et al., J. Cell Biol. (1991) 114:443; Erdmann et al. Cell (1991) 64:499; Peters et al., EMBO J. (1990) 9:1757; Kunau et al., Biochimie (1993) 75:209-224; Confalonieri et al., BioEssays (1995) 17:639; http://yeamob.pci.chemie.unituebingen.de/AAA/Description.html). The proteins that belong to this family either contain one or two AAA domains.

Proteins containing two AAA domains include: 1) Mammalian and drosophila NSF (N-ethylmaleimide-sensitive fusion protein) and the fungal homolog, SEC18, which are

involved in intracellular transport between the endoplasmic reticulum and Golgi, as well as between different Golgi cisternae; 2) Mammalian transitional endoplasmic reticulum ATPase (previously known as p97 or VCP), which is involved in the transfer of membranes from the endoplasmic reticulum to the golgi apparatus. This ATPase forms a ring-shaped homooligomer composed of six subunits. The yeast homolog, CDC48, plays a role in spindle pole proliferation; 3) Yeast protein PAS1 essential for peroxisome assembly and the related protein PAS1 from Pichia pastoris; 4) Yeast protein AFG2; 5) Sulfolobus acidocaldarius protein SAV and Halobacterium salinarium cdcH, which may be part of a transduction pathway connecting light to cell division.

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Proteins containing a single AAA domain include: 1) Escherichia coli and other bacteria ftsH (or hflB) protein. FtsH is an ATP-dependent zinc metallopeptidase that degrades the heat-shock sigma-32 factor, and is an integral membrane protein with a large cytoplasmic C-terminal domain that contain both the AAA and the protease domains; 2) Yeast protein YME1, a protein important for maintaining the integrity of the mitochondrial compartment. YME1 is also a zinc-dependent protease; 3) Yeast protein AFG3 (or YTA10). This protein also contains an AAA domain followed by a zinc-dependent protease domain; 4) Subunits from regulatory complex of the 26S proteasome (Hilt et al., Trends Biochem. Sci. (1996) 21:96), which is involved in the ATP-dependent degradation of ubiquitinated proteins, which subunits include: a) Mammalian 4 and homologs in other higher eukaryotes, in yeast (gene YTA5) and fission yeast (gene mts2); b) Mammalian 6 (TBP7) and homologs in other higher eukaryotes and in yeast (gene YTA2); c) Mammalian subunit 7 (MSS1) and homologs in other higher eukaryotes and in yeast (gene CIM5 or YTA3); d) Mammalian subunit 8 (P45) and homologs in other higher eukaryotes and in yeast (SUG1 or CIM3 or TBY1) and fission yeast (gene let1); e) Other probable subunits include human TBP1, which influences HIV gene expression by interacting with the virus tat transactivator protein, and yeast YTA1 and YTA6; 5) Yeast protein BCS1, a mitochondrial protein essential for the expression of the Rieske iron-sulfur protein; 6) Yeast protein MSP1, a protein involved in intramitochondrial sorting of proteins; 7) Yeast protein PAS8, and the corresponding proteins PAS5 from Pichia pastoris and PAY4 from Yarrowia lipolytica; 8) Mouse protein SKD1 and its fission yeast homolog (SpAC2G11.06); 9) Caenorhabditis elegans meiotic spindle formation protein mei-1; 10) Yeast protein SAP1' 11) Yeast protein YTA7; and 12) Mycobacterium leprae hypothetical protein A2126A.

In general, the AAA domains in these proteins act as ATP-dependent protein clamps(Confalonieri *et al.* (1995) *BioEssays 17*:639). In addition to the ATP-binding 'A' and 'B' motifs, which are located in the N-terminal half of this domain, there is a highly conserved region located in the central part of the domain which was used in the development of the signature pattern. The consensus pattern is: [LIVMT]-x-[LIVMT]-[LIVMF]-x-[GATMC]-[ST]-[NS]-x(4)-[LIVM]- D-x-A-[LIFA]-x-R.

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f) <u>Bcl-2 family (Bcl-2)</u>. SEQ ID NO:3404, and thus the corresponding sequence it validates, represents a polynucleotide encoding an apoptosis regulator protein of the Bcl-2 family. Active cell suicide (apoptosis) is induced by events such as growth factor withdrawal and toxins. It is controlled by regulators, which have either an inhibitory effect on programmed cell death (anti-apoptotic) or block the protective effect of inhibitors (proapoptotic) (Vaux, 1993, Curr. Biol. 3:877-878, and White, 1996, Genes Dev. 10:2859-2869). Many viruses have found a way of countering defensive apoptosis by encoding their own anti-apoptosis genes, preventing their target cells from dying prematurely.

All proteins belonging to the Bcl-2 family (Reed et al., 1996, Adv. Exp. Med. Biol. 406:99-112) contain either a BH1, BH2, BH3, or BH4 domain. All anti-apoptotic proteins contain BH1 and BH2 domains; some of them contain an additional N-terminal BH4 domain (Bcl-2, Bcl-x(L), Bcl-w), which is never seen in pro-apoptotic proteins, except for Bcl-x(S). On the other hand, all pro-apoptotic proteins contain a BH3 domain (except for Bad) necessary for dimerization with other proteins of Bcl-2 family and crucial for their killing activity; some of them also contain BH1 and BH2 domains (Bax, Bak). The BH3 domain is also present in some anti-apoptotic protein, such as Bcl-2 or Bcl-x(L). Proteins that are known to contain these domains are listed below.

- Vertebrate protein Bcl-2. Bcl-2 blocks apoptosis; it prolongs the survival of
   hematopoietic cells in the absence of required growth factors and also in the presence of various stimuli inducing cellular death. Two isoforms of bcl-2 (alpha and beta) are generated by alternative splicing. Bcl-2 is expressed in a wide range of tissues at various times during development. It forms heterodimers with the Bax proteins.
- Vertebrate protein Bcl-x. Two isoforms of Bcl-x (Bcl-x(L) and Bcl-x(S)) are
   generated by alternative splicing. While the longer product (Bcl-x(L)) can protect a growth-factor-dependent cell line from apoptosis, the shorter form blocks the protective effect of Bcl-2 and Bcl-x(L) and acts as an anti-anti-apoptosis protein.
  - 3. Mammalian protein Bax. Bax blocks the anti-apoptosis ability of Bcl-2 with which

it forms heterodimers. There is no evidence that Bax has any activity in the absence of Bcl-2. Three isoforms of bax (alpha, beta and gamma) are generated by alternative splicing.

- 4. Mammalian protein Bak, which promotes cell death and counteracts the protection from apoptosis provided by Bcl-2.
- 5. Mammalian protein Bcl-w, which promotes cell survival.

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- 6. Mammalian protein bad, which promotes cell death, and counteracts the protection from apoptosis provided by Bcl-x(L), but not that of Bcl-2.
- 7. Human protein Bik, which promotes cell death, but cannot counteract the protection from apoptosis provided by Bcl-2.
  - 8. Mouse protein Bid, which induces caspases and apoptosis, and counteracts the protection from apoptosis provided by Bcl-2.
  - 9. Human induced myeloid leukemia cell differentiation protein MCL1. MCL1 is probably involved in programming of differentiation and concomitant maintenance of viability but not proliferation. Its expression increases early during phorbol ester induced differentiation in myeloid leukemia cell line ML-1.
  - 10. Mouse hemopoietic-specific early response protein A1.
- 11. Mammalian activator of apoptosis Harakiri (Inohara et al., 1997, EMBO J.
  16:1686-1694) (also known as neuronal death protein Dp5). This is a small protein of 92
  20 residues that activates apoptosis. It contains a BH3 domain, but no BH1, BH2 or BH4 domains.

The following consensus patterns have been developed for the four BH domains:

- 1) [LVME]-[FT]-x-[GSD]-[GL]-x(1,2)-[NS]-[YW]-G-R-[LIV]- [LIVC]-[GAT]-[LIVMF](2)-x-F-[GSAE]-[GSARY]
- 25 2) W-[LIM]-x(3)-[GR]-G-[WQ]-[DENSAV]-x-[FLGA]-[LIVFTC]
  - 3) [LIVAT]-x(3)-L-[KARQ]-x-[IVAL]-G-D-[DESG]-[LIMFV]-[DENSHQ]-[LVSHRQ]-[NSR]
  - 4) [DS]-[NT]-R-[AE]-[LI]-V-x-[KD]-[FY]-[LIV]-[GHS]-Y-K-L- [SR]-Q-[RK]-G-[HY]-x-[CW].
- g) <u>Bromodomain (bromodomain)</u>. SEQ ID NOS:4036 and 4489, and thus the corresponding sequences they validate, represent polynucleotides encoding a polypeptide having a bromodomain region (Haynes et al., 1992, Nucleic Acids Res. 20:2693-2603, Tamkun et al., 1992, Cell 68:561-572, and Tamkun, 1995, Curr. Opin. Genet. Dev. 5:473-

477), which is a conserved region of about 70 amino acids found in the following proteins:

1) Higher eukaryotes transcription initiation factor TFIID 250 Kd subunit (TBP-associated factor p250) (gene CCG1); P250 is associated with the TFIID TATA-box binding protein and seems essential for progression of the G1 phase of the cell cycle. 2) Human RING3, a protein of unknown function encoded in the MHC class II locus; 3) Mammalian CREB-binding protein (CBP), which mediates cAMP-gene regulation by binding specifically to phosphorylated CREB protein; 4) Mammalian homologs of brahma, including three brahma-like human: SNF2a(hBRM), SNF2b, and BRG1; 5) Human BS69, a protein that binds to adenovirus E1A and inhibits E1A transactivation; 6) Human peregrin (or Br140).

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The bromodomain is thought to be involved in protein-protein interactions and may be important for the assembly or activity of multicomponent complexes involved in transcriptional activation. The consensus pattern, which spans a major part of the bromodomain, is: [STANVF]-x(2)-F-x(4)-[DNS]-x(5,7)-[DENQTF]-Y-[HFY]-x(2)-[LIVMFY]-x(3)-[LIVM]-x(4)-[LIVM]-x(6,8)-Y-x(12,13)-[LIVM]-x(2)-N-[SACF]-x(2)-[FY].

- h) Basic Region Plus Leucine Zipper Transcription Factors (BZIP). SEQ ID NO:3408, 2951, and 4850, and thus the corresponding sequences these sequences validate, represent polynucleotides encoding a novel member of the family of basic region plus leucine zipper transcription factors. The bZIP superfamily (Hurst, Protein Prof. (1995) 2:105; and Ellenberger, Curr. Opin. Struct. Biol. (1994) 4:12) of eukaryotic DNA-binding 20 transcription factors encompasses proteins that contain a basic region mediating sequencespecific DNA-binding followed by a leucine zipper required for dimerization. Members of the family include transcription factor AP-1, which binds selectively to enhancer elements in the cis control regions of SV40 and metallothionein IIA. AP-1, also known as c-jun, is the cellular homolog of the avian sarcoma virus 17 (ASV17) oncogene v-jun. 25 Other members of this protein family include jun-B and jun-D, probable transcription factors that are highly similar to jun/AP-1; the fos protein, a proto-oncogene that forms a non-covalent dimer with c-jun; the fos-related proteins fra-1, and fos B; and mammalian cAMP response element (CRE) binding proteins CREB, CREM, ATF-1, ATF-3, ATF-4, ATF-5, ATF-6 and LRF-1. The consensus pattern for this protein family is: [KR]-x(1,3)-30 [RKSAQ]-N-x(2)-[SAQ](2)-x-[RKTAENQ]-x-R-x-[RK].
  - i) <u>Cyclins (cyclin)</u>. SEQ ID NOS:3618, 3895, and 4536, and thus the corresponding sequences these sequences validate, represent polynucleotides encoding

cyclins, and SEQ ID NO:55 and 56, respectively, show the corresponding full-length polynucleotides. SEQ ID NO:57 and 58 show, respectively, the translations of SEQ ID NO:55 and 56. Cyclins (Nurse, 1990, Nature 344:503-508; Norbury et al., 1991, Curr. Biol. 1:23-24; and Lew et al., 1992, Trends Cell Biol. 2:77-81) are eukaryotic proteins that play an active role in controlling nuclear cell division cycles. There are two main groups of cyclins. G2/M cyclins are essential for the control of the cell cycle at the G2/M (mitosis) transition. G2/M cyclins accumulate steadily during G2 and are abruptly destroyed as cells exit from mitosis (at the end of the M-phase). G1/S cyclins are essential for the control of the cell cycle at the G1/S (start) transition.

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The best conserved region is in the central part of the cyclins' sequences, known as the "cyclin-box," from which a 32 residue consensus pattern was derived: R-x(2)-[LIVMSA]-x(2)-[FYWS]-[LIVM]-x(8)-[LIVMFC]-x(4)-[LIVMFYA]-x(2)-[STAGC]-[LIVMFYQ]-x-[LIVMFYC]-[LIVMFY]-D-[RKH]-[LIVMFYW].

j) Eukaryotic thiol (cysteine) proteases active sites (Cys-protease). SEO ID NOS:3344, 3684, 3688, and 4801, and thus also the sequences they validate, repreasent polynucleotides encoding proteins having a eukaryotic thiol (cysteine) protease active site. Eukaryotic thiol proteases (Dufour E., Biochimie (1988) 70:1335); are a family of proteolytic enzymes which contain an active site cysteine. Catalysis proceeds through a thioester intermediate and is facilitated by a nearby histidine side chain; an asparagine completes the essential catalytic triad. The proteases that belong to this family are: 1) vertebrate lysosomal cathepsins B (Kirschke H., et al., Protein Prof. (1995) 2:1587-1643); 2) vertebrate lysosomal dipeptidyl peptidase I (also known as cathepsin C) (Kirschke H., et al., supra); 3) vertebrate calpains (Calpains are intracellular calciumactivated thiol protease that contain both an N-terminal catalytic domain and a C-terminal calcium-binding domain); 4) mammalian cathepsin K, which seems involved in osteoclastic bone resorption (Shi G.-P., et al., FEBS Lett. (1995) 357:129); 5) human cathepsin O ([4] Velasco G., Ferrando A.A., Puente X.S., Sanchez L.M., Lopez-Otin C. J. Biol. Chem. (1994) 269:27136); 6) bleomycin hydrolase (which catalyzes the inactivation of the antitumor drug BLM (a glycopeptide)); 7) Plant enzymes such as: barley aleurain. EP-B1/B4; kidney bean EP-C1, rice bean SH-EP; kiwi fruit actinidin; papaya latex papin, chymopapain, caricain, and proteinase IV; pea turgor-responsive protein 15A; pineapple stem bromelain; rape COT44; rice oryzain alpha, beta, and gamma; tomato lowtemperature induced, Arabidopsis thaliana A494, RD19A and RD21A; 8) - House-dust

mites allergens DerP1 and EurM1; 9) cathepsin B-like proteinases from the worms Caenorhabditis elegans (genes gcp-1, cpr-3, cpr-4, cpr-5 and cpr-6), Schistosoma mansoni (antigen SM31) and Japonica (antigen SJ31), Haemonchus contortus (genes AC-1 and AC-2), and Ostertagia ostertagi (CP-1 and CP-3); 10) slime mold cysteine proteinases CP1 and CP2; 11) cruzipain from Trypanosoma cruzi and brucei; 12) throphozoite cysteine proteinase (TCP) from various Plasmodium species; 13) proteases from Leishmania mexicana, Theileria annulata and Theileria parva; 14) Baculoviruses cathepsin-like enzyme (v-cath); 15) Drosophila small optic lobes protein (gene sol), a neuronal protein that contains a calpain-like domain; 16) yeast thiol protease BLH1/YCP1/LAP3;

17) Caenorhabditis elegans hypothetical protein C06G4.2, a calpain-like protein.

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In addition, two bacterial peptidases are also part of this family: 1) aminopeptidase C from Lactococcus lactis (gene pepC) (Chapot-Chartier M.P., et al., *Appl. Environ. Microbiol.* (1993) 59:330); and 2) thiol protease tpr from Porphyromonas gingivalis. Three other proteins are structurally related to this family, but may have lost their proteolytic activity. These include: 1) soybean oil body protein P34 (which has its active site cysteine replaced by a glycine); 2) rat testin (which is a sertoli cell secretory protein highly similar to cathepsin L but with the active site cysteine is replaced by a serine); and 3) Plasmodium falciparum serine-repeat protein (SERA) (which is the major blood stage antigen and possesses a C-terminal thiol-protease-like domain (Higgins D.G., et al., *Nature* (1989) 340:604), with the active site cysteine is replaced by a serine).

The sequences around the three active site residues are well conserved and can be used as signature patterns:

Consensus pattern #1: Q-x(3)-[GE]-x-C-[YW]-x(2)-[STAGC]-[STAGCV] (where C is the active site residue)

Consensus pattern #2: [LIVMGSTAN]-x-H-[GSACE]-[LIVM]-x-[LIVMAT](2)-G-x-[GSADNH] (where H is the active site residue);

Consensus patern #3: [FYCH]-[WI]-[LIVT]-x-[KRQAG]-N-[ST]-W-x(3)-[FYW]-G-x(2)-G- [LFYW]-[LIVMFYG]-x-[LIVMF] (where N is the active site residue).

k) Phorbol Esters/Diacylglycerol Binding (DAG\_PE\_bind). SEQ ID NO:4659, and thus the sequence it validates, represents a polynucleotide encoding a protein belonging to the family including phorbol esters/diacylglycerol binding proteins. Diacylglycerol (DAG) is an important second messenger. Phorbol esters (PE) are analogues of DAG and potent tumor promoters that cause a variety of physiological changes when administered to both

cells and tissues. DAG activates a family of serine/threonine protein kinases, collectively known as protein kinase C (PKC) (Azzi et al., Eur. J. Biochem. (1992) 208:547). Phorbol esters can directly stimulate PKC. The N-terminal region of PKC, known as C1, has been shown (Ono et al., Proc. Natl. Acad. Sci. USA (1989) 86:4868) to bind PE and DAG in a phospholipid and zinc-dependent fashion. The C1 region contains one or two copies (depending on the isozyme of PKC) of a cysteine-rich domain about 50 amino-acid residues long and essential for DAG/PE-binding. Such a domain has also been found in, for example, the following proteins.

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- (1) Diacylglycerol kinase (EC 2.7.1.107) (DGK) (Sakane *et al.*, *Nature* (1990) 344:345), the enzyme that converts DAG into phosphatidate. It contains two copies of the DAG/PE-binding domain in its N-terminal section. At least five different forms of DGK are known in mammals; and
- (2) N-chimaerin, a brain specific protein which shows sequence similarities with the BCR protein at its C-terminal part and contains a single copy of the DAG/PE-binding domain at its N-terminal part. It has been shown (Ahmed *et al.*, *Biochem. J.* (1990) 272:767, and Ahmed *et al.*, *Biochem. J.* (1991) 280:233) to be able to bind phorbol esters.

The DAG/PE-binding domain binds two zinc ions; the ligands of these metal ions are probably the six cysteines and two histidines that are conserved in this domain. The signature pattern completely spans the DAG/PE domain. The consensus pattern is: H-x-[LIVMFYW]-x(8,11)-C-x(2)-C-x(3)-[LIVMFC]-x(5,10)-C-x(2)-C-x(4)-[HD]-x(2)-C-x(5,9)-C. All the C and H are probably involved in binding zinc.

- 1) DEAD and DEAH box families ATP-dependent helicases signatures

  (Dead box helic). SEQ ID NOS:4821 and 5083, and thus the sequences they validate, represent polynucleotides encoding a novel member of the DEAD box family. A number of eukaryotic and prokaryotic proteins have been characterized (Schmid S.R., et al., *Mol. Microbiol.* (1992) 6:283; Linder P., et al., *Nature* (1989) 337:121; Wassarman D.A., et al., *Nature* (1991) 349:463) on the basis of their structural similarity. All are involved in ATP-dependent, nucleic-acid unwinding. Proteins currently known to belong to this family are:
- Initiation factor eIF-4A. Found in eukaryotes, this protein is a subunit of a high
   molecular weight complex involved in 5'cap recognition and the binding of mRNA to
   ribosomes. It is an ATP-dependent RNA-helicase.
  - 2) PRP5 and PRP28. These yeast proteins are involved in various ATP-requiring steps of the pre-mRNA splicing process.

- 3) Pl10, a mouse protein expressed specifically during spermatogenesis.
- 4) An3, a Xenopus putative RNA helicase, closely related to Pl10.
- 5) SPP81/DED1 and DBP1, two yeast proteins involved in pre-mRNA splicing and related to Pl10.
- 5 6) Caenorhabditis elegans helicase glh-1.
  - 7) MSS116, a yeast protein required for mitochondrial splicing.
  - 8) SPB4, a yeast protein involved in the maturation of 25S ribosomal RNA.
  - 9) p68, a human nuclear antigen. p68 has ATPase and DNA-helicase activities in vitro. It is involved in cell growth and division.
- 10 10) Rm62 (p62), a Drosophila putative RNA helicase related to p68.
  - 11) DBP2, a yeast protein related to p68.
  - 12) DHH1, a yeast protein.
  - 13) DRS1, a yeast protein involved in ribosome assembly.
  - 14) MAK5, a yeast protein involved in maintenance of dsRNA killer plasmid.
- 15) ROK1, a yeast protein.
  - 16) ste13, a fission yeast protein.
  - 17) Vasa, a Drosophila protein important for oocyte formation and specification of embryonic posterior structures.
    - 18) Me31B, a Drosophila maternally expressed protein of unknown function.
- 20 19) dbpA, an Escherichia coli putative RNA helicase.
  - 20) deaD, an Escherichia coli putative RNA helicase which can suppress a mutation in the rpsB gene for ribosomal protein S2.
    - 21) rhlB, an Escherichia coli putative RNA helicase.
    - 22) rhlE, an Escherichia coli putative RNA helicase.
- 25 23) rmB, an Escherichia coli protein that shows RNA-dependent ATPase activity, which interacts with 23S ribosomal RNA.
  - 24) Caenorhabditis elegans hypothetical proteins T26G10.1, ZK512.2 and ZK686.2.
    - 25) Yeast hypothetical protein YHR065c.
- 30 26) Yeast hypothetical protein YHR169w.
  - 27) Fission yeast hypothetical protein SpAC31A2.07c.
  - 28) Bacillus subtilis hypothetical protein yxiN.

All of the above proteins share a number of conserved sequence motifs. Some of them are specific to this family while others are shared by other ATP-binding proteins or by proteins belonging to the helicases 'superfamily' (Hodgman T.C., *Nature* (1988) 333:22 and *Nature* (1988) 333:578 (Errata);

- http://www.expasy.ch/www/linder/HELICASES\_TEXT.html). One of these motifs, called the 'D-E-A-D-box', represents a special version of the B motif of ATP-binding proteins.
   Some other proteins belong to a subfamily which have His instead of the second Asp and are thus said to be 'D-E-A-H-box' proteins (Wassarman D.A., et al., *Nature* (1991) 349:463; Harosh I., et al., *Nucleic Acids Res.* (1991) 19:6331; Koonin E.V., et al., *J. Gen.* Virol. (1992) 73:989; http://www.expasy.ch/www/linder/HELICASES\_TEXT.html).
   Proteins currently known to belong to this DEAH subfamily are:
  - 1) PRP2, PRP16, PRP22 and PRP43. These yeast proteins are all involved in various ATP-requiring steps of the pre-mRNA splicing process. 2) Fission yeast prh1, which my be involved in pre-mRNA splicing. 3) Male-less (mle), a Drosophila protein required in males, for dosage compensation of X chromosome linked genes. 4) RAD3 from yeast. RAD3 is a DNA helicase involved in excision repair of DNA damaged by UV light, bulky adducts or cross-linking agents. Fission yeast rad15 (rhp3) and mammalian DNA excision repair protein XPD (ERCC-2) are the homologs of RAD3. 5) Yeast CHL1 (or CTF1), which is important for chromosome transmission and normal cell cycle progression in G(2)/M. 6) Yeast TPS1. 7) Yeast hypothetical protein YKL078w. 8) Caenorhabditis elegans hypothetical proteins C06E1.10 and K03H1.2. 9) Poxviruses' early transcription factor 70 Kd subunit which acts with RNA polymerase to initiate transcription from early gene promoters. 10) 18, a putative vaccinia virus helicase. 11) hrpA, an Escherichia coli putative RNA helicase.

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- The following signature patterns are used to identify member for both subfamilies:

  Consensus pattern: [LIVMF](2)-D-E-A-D-[RKEN]-x-[LIVMFYGSTN]

  Consensus pattern: [GSAH]-x-[LIVMF](3)-D-E-[ALIV]-H-[NECR].
  - m) <u>EF Hand (EFhand)</u>. Several of the validation sequences, and thus the sequences they validate, correspond to polynucleotides encoding a novel protein in the family of EFhand proteins. Many calcium-binding proteins belong to the same evolutionary family and share a type of calcium-binding domain known as the EF-hand (Kawasaki *et al.*, *Protein. Prof.* (1995) 2:305-490). This type of domain consists of a twelve residue loop flanked on both sides by a twelve residue alpha-helical domain. In an EF-hand loop the calcium ion is

coordinated in a pentagonal bipyramidal configuration. The six residues involved in the binding are in positions 1, 3, 5, 7, 9 and 12; these residues are denoted by X, Y, Z, -Y, -X and -Z. The invariant Glu or Asp at position 12 provides two oxygens for liganding Ca (bidentate ligand).

Proteins known to contain EF-hand regions include: Calmodulin (Ca=4, except in yeast where Ca=3) ("Ca=" indicates approximate number of EF-hand regions); diacylglycerol kinase (EC 2.7.1.107) (DGK) (Ca=2); 2) FAD-dependent glycerol-3-phosphate dehydrogenase (EC 1.1.99.5) from mammals (Ca=1); guanylate cyclase activating protein (GCAP) (Ca=3); MIF related proteins 8 (MRP-8 or CFAG) and 14

(MRP-14) (Ca=2); myosin regulatory light chains (Ca=1); oncomodulin (Ca=2); osteonectin (basement membrane protein BM-40) (SPARC); and proteins that contain an "osteonectin" domain (QR1, matrix glycoprotein SC1).

The consensus pattern includes the complete EF-hand loop as well as the first residue which follows the loop and which seem to always be hydrophobic: D-x-[DNS][LIVFYW}-[DENSTG]-[DNQGHRK]-{GP}-[LIVMC]-[DENQSTAGC]-x(2)-[DE]-[LIVMFYW].

n) Ets Domain (Ets Nterm). SEQ ID NO:2849, and thus the sequence it validates, represents a polynucleotide encoding a polypeptide with N-terminal homology in ETS domain. Proteins of this family contain a conserved domain, the "ETS-domain," that is involved in DNA binding. The domain appears to recognize purine-rich sequences; it is about 85 to 90 amino acids in length, and is rich in aromatic and positively charged residues (Wasylyk, et al., , Eur. J. Biochem. (1993) 211:718).

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The ets gene family encodes a novel class of DNA-binding proteins, each of which binds a specific DNA sequence. These proteins comprise an ets domain that specifically interacts with sequences containing the common core tri-nucleotide sequence GGA. In addition to an ets domain, native ets proteins comprise other sequences which can modulate the biological specificity of the protein. Ets genes and proteins are involved in a variety of essential biological processes including cell growth, differentiation and development, and three members are implicated in oncogenic process.

o) Type II fibronectin collagen-binding domain (FntypeII). A few of the validation sequences, and thus the sequences they validate, represent polynucleotides encoding a polypeptide having a type II fibronectin collagen binding domain. Fibronectin is a plasma protein that binds cell surfaces and various compounds including collagen, fibrin, heparin,

DNA, and actin. The major part of the sequence of fibronectin consists of the repetition of three types of domains, which are called type I, II, and III (Skorstengaard K., et al., Eur. J. Biochem. (1986) 161:441). Type II domain is approximately forty residues long, contains four conserved cysteines involved in disulfide bonds and is part of the collagen-binding region of fibronectin. In fibronectin the type II domain is duplicated. Type II domains have also been found in the following proteins: 1) blood coagulation factor XII (Hageman factor) (1 copy); 2) bovine seminal plasma proteins PDC-109 (BSP-A1/A2) and BSP-A3 (Seidah N.G., et al., Biochem. J. (1987) 243:195. (twice); 3) cation-independent mannose-6-phosphate receptor (which is also the insulin-like growth factor II receptor) Kornfeld S., Annu. Rev. Biochem. (1992) 61:307) (1 copy); 4) Mannose receptor of macrophages (Taylor M.E., et al., J. Biol. Chem. (1990) 265:12156) (1 copy); 5) 180 Kd secretory phospholipase A2 receptor (1 copy) Lambeau G., et al., J. Biol. Chem. (1994) 269:1575; 6) DEC-205 receptor (1 copy); 6) Jiang W., et al., Nature (1995) 375:151); 7) 72 Kd type IV collagenase (EC 3.4.24.24) (MMP-2) (Collier I.E., et al., J. Biol. Chem. (1988) 263:6579) (3 copies); 7) 92 Kd type IV collagenase (EC 3.4.24.24) (MMP-9) (3 copies); 8) Hepatocyte growth factor activator (Miyazawa K., et al., J. Biol. Chem. (1993) 268:10024) (1 copy).

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A schematic representation of the position of the invariant residues and the topology of the disulfide bonds in fibronectin type II domain is shown below:

xxCxxPFx#xxxxxxCxxxxxxxWCxxxxx#xxx#x#Cxx where 'C' represents the conserved cysteine involved in a disulfide bond and '#' represents a large hydrophobic residue. The consensus pattern for identifying members of this family, which pattern spans this entire domain, is: C-x(2)-P-F-x-[FYWI]-x(7)-C-x(8,10)-W-C-x(4)-[DNSR]-[FYW]-x(3,5)-[FYW]-x-[FYWI]-C (where the four C's are involved in disulfide bonds).

p) G-Protein Alpha Subunit (G-alpha). Several of the validation sequences, and thus the sequences they validate, correspond to a gene encoding a novel polypeptide of the G-protein alpha subunit family. Guanine nucleotide binding proteins (G-proteins) are a family of membrane-associated proteins that couple extracellularly-activated integral-membrane receptors to intracellular effectors, such as ion channels and enzymes that vary the concentration of second messenger molecules. G-proteins are composed of 3 subunits (alpha, beta and gamma) which, in the resting state, associate as a trimer at the inner face of

the plasma membrane. The alpha subunit has a molecule of guanosine diphosphate (GDP) bound to it. Stimulation of the G-protein by an activated receptor leads to its exchange for GTP (guanosine triphosphate). This results in the separation of the alpha from the beta and gamma subunits, which always remain tightly associated as a dimer. Both the alpha and beta-gamma subunits are then able to interact with effectors, either individually or in a cooperative manner. The intrinsic GTPase activity of the alpha subunit hydrolyses the bound GTP to GDP. This returns the alpha subunit to its inactive conformation and allows it to reassociate with the beta-gamma subunit, thus restoring the system to its resting state.

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G-protein alpha subunits are 350-400 amino acids in length and have molecular weights in the range 40-45 kDa. Seventeen distinct types of alpha subunit have been identified in mammals. These fall into 4 main groups on the basis of both sequence similarity and function: alpha-s, alpha-q, alpha-i and alpha-12 (Simon *et al.*, *Science* (1993) 252:802). Many alpha subunits are substrates for ADP-ribosylation by cholera or pertussis toxins. They are often N-terminally acylated, usually with myristate and/or palmitoylate, and these fatty acid modifications are probably important for membrane association and high- affinity interactions with other proteins. The atomic structure of the alpha subunit of the G-protein involved in mammalian vision, transducin, has been elucidated in both GTP- and GDB-bound forms, and shows considerable similarity in both primary and tertiary structure in the nucleotide-binding regions to other guanine nucleotide binding proteins, such as p21-ras and EF-Tu.

- q) <u>Helicases conserved C-terminal domain (helicase C)</u>. SEQ ID NOS:2503, 4469, and 5020, and thus the sequences they validate, represent polynucleotides encoding novel members of the DEAD/H helicase family. The DEAD and DEAH families are described above.
- r) Homeobox domain (homeobox). SEQ ID NO:4241, and thus the sequence it validates, represents a polynucleotide encoding a protein having a homeobox domain. The 'homeobox' is a protein domain of 60 amino acids (Gehring In: Guidebook to the Homebox Genes, Duboule D., Ed., pp1-10, Oxford University Press, Oxford, (1994); Buerglin In: Guidebook to the Homebox Genes, pp25-72, Oxford University Press, Oxford, (1994); Gehring Trends Biochem. Sci. (1992) 17:277-280; Gehring et alAnnu. Rev. Genet. (1986) 20:147-173; Schofield Trends Neurosci. (1987) 10:3-6; http://copan.bioz.unibas.ch/homeo.html) first identified in number of Drosophila homeotic and segmentation proteins. It is extremely well conserved in many other animals, including vertebrates. This domain

binds DNA through a helix-turn-helix type of structure. Several proteins that contain a homeobox domain play an important role in development. Most of these proteins are sequence-specific DNA-binding transcription factors. The homeobox domain is also very similar to a region of the yeast mating type proteins. These are sequence-specific DNA-binding proteins that act as master switches in yeast differentiation by controlling gene expression in a cell type-specific fashion.

A schematic representation of the homeobox domain is shown below. The helix-turn-helix region is shown by the symbols 'H' (for helix), and 't' (for turn).

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The pattern detects homeobox sequences 24 residues long and spans positions 34 to 57 of the homeobox domain. The consensus pattern is as follows: [LIVMFYG]-[ASLVR]-x(2)-[LIVMSTACN]-x-[LIVM]-x(4)-[LIV]-[RKNQESTAIY]-[LIVFSTNKH]-W-[FYVC]-x-[NDQTAH]-x(5)-[RKNAIMW].

x) MAP kinase kinase (mkk). Several validation sequences, and thus the sequences they validate, represent novel members of the MAP kinase kinase family. MAP kinases (MAPK) are involved in signal transduction, and are important in cell cycle and cell growth controls. The MAP kinase kinases (MAPKK) are dual-specificity protein kinases which phosphorylate and activate MAP kinases. MAPKK homologues have been found in yeast, invertebrates, amphibians, and mammals. Moreover, the MAPKK/MAPK phosphorylation switch constitutes a basic module activated in distinct pathways in yeast and in vertebrates. MAPKK regulation studies have led to the discovery of at least four MAPKK convergent pathways in higher organisms. One of these is similar to the yeast pheromone response pathway which includes the stell protein kinase. Two other pathways require the activation of either one or both of the serine/threonine kinase-encoded oncogenes c-Raf-1 and c-Mos. Additionally, several studies suggest a possible effect of the cell cycle control regulator cyclin-dependent kinase 1 (cdc2) on MAPKK activity. Finally, MAPKKs are apparently essential transducers through which signals must pass

Finally, MAPKKs are apparently essential transducers through which signals must pass before reaching the nucleus. For review, see, e.g., Biologique Biol Cell (1993) 79:193-207; Nishida et al., Trends Biochem Sci (1993) 18:128-31; Ruderman Curr Opin Cell Biol (1993) 5:207-13; Dhanasekaran et al., Oncogene (1998) 17:1447-55; Kiefer et al., Biochem Soc Trans (1997) 25:491-8; and Hill, Cell Signal (1996) 8:533-44.

y) 3'5'-cyclic nucleotide phosphodiesterases signature (PDEase). SEQ ID NO:4482, and thus the sequence it validates, represents a polynucleotide encoding a novel 3'5'-cyclic nucleotide phosphodiesterases (PDEases). PDEases catalyze the hydrolysis of cAMP or cGMP to the corresponding nucleoside 5' monophosphates (Charbonneau H., et al, *Proc. Natl. Acad. Sci. U.S.A.* (1986) 83:9308). There are at least seven different subfamilies of PDEases (Beavo J.A., et al., *Trends Pharmacol. Sci.* (1990) 11:150; http://weber.u.washington.edu/~pde/: 1) Type 1, calmodulin/calcium-dependent PDEases; 2) Type 2, cGMP-stimulated PDEases; 3) Type 3, cGMP-inhibited PDEases; 4) Type 4, cAMP-specific PDEases.; 5) Type 5, cGMP-specific PDEases; 6) Type 6, rhodopsin-sensitive cGMP-specific PDEases; and 7) Type 7, High affinity cAMP-specific PDEases.

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All PDEase forms share a conserved domain of about 270 residues. The signature pattern is determined from a stretch of 12 residues that contains two conserved histidines: H-D-[LIVMFY]-x-H-x-[AG]-x(2)-[NQ]-x-[LIVMFY].

z) Protein Kinase (protkinase). Several validation sequences, and thus the sequences they validate, represent polynucleotides encoding protein kinases. Protein 15 kinases catalyze phosphorylation of proteins in a variety of pathways, and are implicated in cancer. Eukaryotic protein kinases (Hanks S.K., et al., FASEB J. (1995) 9:576; Hunter T., Meth. Enzymol. (1991) 200:3; Hanks S.K., et al., Meth. Enzymol. (1991) 200:38; Hanks S.K., Curr. Opin. Struct. Biol. (1991) 1:369; Hanks S.K., et al., Science (1988) 241:42) are enzymes that belong to a very extensive family of proteins which share a conserved 20 catalytic core common to both serine/threonine and tyrosine protein kinases. There are a number of conserved regions in the catalytic domain of protein kinases. Two of the conserved regions are the basis for the signature pattern in the protein kinase profile. The first region, which is located in the N-terminal extremity of the catalytic domain, is a 25 glycine-rich stretch of residues in the vicinity of a lysine residue, which has been shown to be involved in ATP binding. The second region, which is located in the central part of the catalytic domain, contains a conserved aspartic acid residue which is important for the catalytic activity of the enzyme (Knighton D.R., et al., Science (1991) 253:407). The protein kinase profile includes two signature patterns for this second region: one specific 30 for serine/threonine kinases and the other for tyrosine kinases. A third profile is based on the alignment in (Hanks S.K., et al., FASEB J. (1995) 9:576) and covers the entire catalytic domain. The consensus patterns are as follows:

1) Consensus pattern: [LIV]-G-{P}-G-{P}-[FYWMGSTNH]-[SGA]-{PW}-[LIVCAT]-{PD}-x-[GSTACLIVMFY]-x(5,18)-[LIVMFYWCSTAR]-[AIVP]-[LIVMFAGCKR]-K, where K binds ATP. The majority of known protein kinases are detected by this pattern. Proteins kinases that are not detected by this consensus include viral kinases, which are quite divergent in this region and are completely missed bythis pattern.

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- 2) Consensus pattern: [LIVMFYC]-x-[HY]-x-D-[LIVMFY]-K-x(2)-N-[LIVMFYCT](3), where D is an active site residue. This consensus sequence identifies most serine/threonine-specific protein kinases with only 10 exceptions. Half of the exceptions are viral kinases, while the other exceptions include Epstein-Barr virus BGLF4 and Drosophila ninaC, which have Ser and Arg, respectively, instead of the conserved Lys. These latter two protein kinases are detected by the tyrosine kinase specific pattern described below.
- 3) Consensus pattern: [LIVMFYC]-x-[HY]-x-D-[LIVMFY]-[RSTAC]-x(2)-N[LIVMFYC], where D is an active site residue. All tyrosine-specific protein kinases are detected by this consensus pattern, with the exception of human ERBB3 and mouse blk. This pattern also detects most bacterial aminoglycoside phosphotransferases (Benner S., Nature (1987) 329:21; Kirby R., J. Mol. Evol. (1992) 30:489) and herpesviruses ganciclovir kinases (Littler E., et al., Nature (1992) 358:160), which are structurally and evolutionary related to protein kinases.

The protein kinase profile also detects receptor guanylate cyclases and 2-5A-dependent ribonucleases. Sequence similarities between these two families and the eukaryotic protein kinase family have been noticed previously. The profile also detects Arabidopsis thaliana kinase-like protein TMKL1 which seems to have lost its catalytic activity.

If a protein analyzed includes the two of the above protein kinase signatures, the probability of it being a protein kinase is close to 100%. Eukaryotic-type protein kinases have also been found in prokaryotes such as Myxococcus xanthus (Munoz-Dorado J., et al., Cell (1991) 67:995) and Yersinia pseudotuberculosis. The patterns shown above has been updated since their publication in (Bairoch A., et al., Nature (1988) 331:22).

aa) Ras family proteins (ras). SEQ IDNO:3671, and thus the sequence it validates, represent polynucleotides encoding the ras family of small GTP/GDP-binding proteins (Valencia et al., 1991, Biochemistry 30:4637-4648). Ras family members generally require

a specific guanine nucleotide exchange factor (GEF) and a specific GTPase activating protein (GAP) as stimulators of overall GTPase activity. Among ras-related proteins, the highest degree of sequence conservation is found in four regions that are directly involved in guanine nucleotide binding. The first two constitute most of the phosphate and Mg2+ binding site (PM site) and are located in the first half of the G-domain. The other two regions are involved in guanosine binding and are located in the C-terminal half of the molecule. Motifs and conserved structural features of the ras-related proteins are described in Valencia et al., 1991, Biochemistry 30:4637-4648.

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A major consensus pattern of ras proteins is: D-T-A-G-Q-E-K-[LF]-G-G-L-R-10 [DE]-G-Y-Y.

bb) Thioredoxin family active site (Thioredox). SEQ ID NO:3936, and thus the sequence it validates, represent a polynucleotide encoding a protein having a thioredoxin family active site. Thioredoxins (Holmgren A., Annu. Rev. Biochem. (1985) 54:237; Gleason F.K., et al., FEMS Microbiol. Rev. (1988) 54:271; Holmgren A. J. Biol. Chem. (1989) 264:13963; Eklund H., et al. Proteins (1991) 11:13) are small proteins of approximately one hundred amino- acid residues which participate in various redox reactions via the reversible oxidation of an active center disulfide bond. They exist in either a reduced form or an oxidized form where the two cysteine residues are linked in an intramolecular disulfide bond. Thioredoxin is present in prokaryotes and eukaryotes and the sequence around the redox-active disulfide bond is well conserved.

A number of eukaryotic proteins contain domains evolutionary related to thioredoxin, and all of them are protein disulphide isomerases (PDI). PDI (Freedman R.B., et al., *Biochem. Soc. Trans.* (1988) 16:96; Kivirikko K.I., et al., *FASEB J.* (1989) 3:1609; Freedman R.B., et al. *Trends Biochem. Sci.* (1994) 19:331) is an endoplasmic reticulum enzyme that catalyzes the rearrangement of disulfide bonds in various proteins. The various forms of PDI which are currently known are: 1) PDI major isozyme; a multifunctional protein that also function as the beta subunit of prolyl 4-hydroxylase (EC 1.14.11.2), as a component of oligosaccharyl transferase (EC 2.4.1.119), as thyroxine deiodinase, as glutathione-insulin transhydrogenase, and as a thyroid hormone-binding protein; 2) ERp60 (ER-60; 58 Kd microsomal protein), which is a protease; 3) ERp72; and 4) P5.

All PDI contains two or three (ERp72) copies of the thioredoxin domain. The consensus pattern is: [LIVMF]-[LIVMSTA]-x-[LIVMFYC]-[FYWSTHE]-x(2)-

[FYWGTN]-C- [GATPLVE]-[PHYWSTA]-C-x(6)-[LIVMFYWT] (where the two C's form the redox-active bond.

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cc) TNFR/NGFR family cysteine-rich region (TNFR c6). SEQ ID NO:3927, and thus the sequence it validates, represent a polynucleotide encoding a protein having a TNFR/NGFR family cysteine-rich region. A number of proteins, some of which are known to be receptors for growth factors, have been found to contain a cysteine-rich domain of about 110 to 160 amino acids in their N-terminal part, that can be subdivided into four (or in some cases, three) modules of about 40 residues containing 6 conserved cysteines. Proteins known to belong to this family (Mallet S., et al., *Immunol. Today* (1991) 12:220; Sprang S.R., Trends Biochem. Sci. (1990) 15:366; Krammer P.H., et al., Curr. Biol. (1992) 2:383; Bazan J.F., Curr. Biol. (1993) 3:603) are: 1) Tumor Necrosis Factor type I and type II receptors (TNFR) (Both receptors bind TNF-alpha and TNF-beta, but are only similar in the cysteine-rich region.); 2) Shope fibroma virus soluble TNF receptor (protein T2); 3) Lymphotoxin alpha/beta receptor; 4) Low-affinity nerve growth factor receptor (LA-NGFR); 5) CD40 (Bp50), the receptor for the CD40L (or TRAP) cytokine; 6) CD27, the receptor for the CD27L cytokine; 8) CD30, the receptor for the CD30L cytokine; 9) T-cell protein 4-1BB, the receptor for the 4-1BBL putative cytokine; 10) FAS antigen (or APO-1), the receptor for FASL, a protein involved in apoptosis (programmed cell death); 11) T-cell antigen OX40, the receptor for the OX40L cytokine; 12) Wsl-1, a receptor (for a yet undefined ligand) that mediates apoptosis; 13) Vaccinia virus protein A53 (SalF19R).

The six cysteines all involved in intrachain disulfide bonds (Banner D.W., et al, Cell (1993) 73:431). A schematic representation of the structure of the 40 residue module of these receptors is shown below:

- - dd) <u>Four Transmembrane Integral Membrane Proteins (transmembrane4</u>). Several of the validation sequences, and thus the sequences they validate, correspond to a sequence encoding a polypeptide that is a member of the 4 transmembrane segments integral

membrane protein family (transmembrane 4 family). The transmembrane 4 family of proteins includes a number of evolutionarily-related eukaryotic cell surface antigens (Levy et al., J. Biol. Chem., (1991) 266:14597; Tomlinson et al., Eur. J. Immunol. (1993) 23:136; Barclay et al. The leucocyte antigen factbooks. (1993) Academic Press, London/San Diego). The proteins belonging to this family include: 1) Mammalian antigen CD9 5 (MIC3), which is involved in platelet activation and aggregation; 2) Mammalian leukocyte antigen CD37, expressed on B lymphocytes; 3) Mammalian leukocyte antigen CD53 (OX-44), which is implicated in growth regulation in hematopoietic cells; 4) Mammalian lysosomal membrane protein CD63 (melanoma-associated antigen ME491; antigen AD1); 5) Mammalian antigen CD81 (cell surface protein TAPA-1), which is implicated in 10 regulation of lymphoma cell growth; 6) Mammalian antigen CD82 (protein R2; antigen C33; Kangai 1 (KAI1)), which associates with CD4 or CD8 and delivers costimulatory signals for the TCR/CD3 pathway; 7) Mammalian antigen CD151 (SFA-1; plateletendothelial tetraspan antigen 3 (PETA-3)); 8) Mammalian cell surface glycoprotein A15 (TALLA-1; MXS1); 9) Mammalian novel antigen 2 (NAG-2); 10) Human tumor-15 associated antigen CO-029; 11) Schistosoma mansoni and japonicum 23 Kd surface antigen (SM23 / SJ23).

The members of the 4 transmembrane family share several characteristics. First, they all are apparently type III membrane proteins, which are integral membrane proteins containing an N-terminal membrane-anchoring domain which is not cleaved during biosynthesis and which functions both as a translocation signal and as a membrane anchor. The family members also contain three additional transmembrane regions, at least seven conserved cysteines residues, and are of approximately the same size (218 to 284 residues). These proteins are collectively know as the "transmembrane 4 superfamily" (TM4) because they span plasma membrane four times.

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where Cyt is the cytoplasmic domain, TMa is the transmembrane anchor; TM2 to TM4 represents transmembrane regions 2 to 4, 'C' are conserved cysteines, and '\*'indicates the position of the consensus pattern. The consensus pattern spans a conserved region including two cysteines located in a short cytoplasmic loop between two transmembrane domains: Consensus pattern: G-x(3)-[LIVMF]-x(2)-[GSA]-[LIVMF](2)-G-C-x-[GA]-[STA]- x(2)-[EG]-x(2)-[CWN]-[LIVM](2).

ee) Trypsin (trypsin). SEQ ID NOS:3381, 4684, and 4688, and thus the sequences they validate, correspond to novel serine proteases of the trypsin family. The catalytic activity of the serine proteases from the trypsin family is provided by a charge relay system involving an aspartic acid residue hydrogen-bonded to a histidine, which itself is hydrogenbonded to a serine. The sequences in the vicinity of the active site serine and histidine residues are well conserved in this family of proteases (Brenner S., Nature (1988) 334:528). Proteases known to belong to the trypsin family include: 1) Acrosin; 2) Blood coagulation factors VII, IX, X, XI and XII, thrombin, plasminogen, and protein C; 3) Cathepsin G; 4) Chymotrypsins; 5) Complement components C1r, C1s, C2, and complement factors B, D and I; 6) Complement-activating component of RA-reactive factor; 7) Cytotoxic cell proteases (granzymes A to H); 8) Duodenase I; 9) Elastases 1, 2, 3A, 3B (protease E), leukocyte (medullasin).; 10) Enterokinase (EC 3.4.21.9) (enteropeptidase); 11) Hepatocyte growth factor activator; 12) Hepsin; 13) Glandular (tissue) kallikreins (including EGF-binding protein types A, B, and C, NGF-gamma chain, gamma-renin, prostate specific antigen (PSA) and tonin); 14) Plasma kallikrein; 15) Mast cell proteases (MCP) 1 (chymase) to 8; 16) Myeloblastin (proteinase 3) (Wegener's autoantigen); 17) Plasminogen activators (urokinase-type, and tissue-type); 18) Trypsins I, II, III, and IV; 19) Tryptases; 20) Snake venom proteases such as ancrod, batroxobin, cerastobin, flavoxobin, and protein C activator; 21) Collagenase from common cattle grub and collagenolytic protease from Atlantic sand fiddler crab; 22) Apolipoprotein(a); 23) Blood fluke cercarial protease; 24) Drosophila trypsin like proteases: alpha, easter, snakelocus; 25) Drosophila protease stubble (gene sb); and 26) Major mite fecal allergen Der p

III. All the above proteins belong to family S1 in the classification of peptidases (Rawlings N.D., et al., Meth. Enzymol. (1994) 244:19; <a href="http://www.expasy.ch/cgibin/lists?peptidas.txt">http://www.expasy.ch/cgibin/lists?peptidas.txt</a>) and originate from eukaryotic species. It should be noted that bacterial proteases that belong to family S2A are similar enough in the regions of the active site residues that they can be picked up by the same patterns.

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The consensus patterns for this trypsin protein family are: 1) [LIVM]-[ST]-A-[STAG]-H-C, where H is the active site residue. All sequences known to belong to this class detected by the pattern, except for complement components C1r and C1s, pig plasminogen, bovine protein C, rodent urokinase, ancrod, gyroxin and two insect trypsins; 2) [DNSTAGC]-[GSTAPIMVQH]-x(2)-G-[DE]-S-G-[GS]-[SAPHV]- [LIVMFYWH]-[LIVMFYSTANQH], where S is the active site residue. All sequences known to belong to this family are detected by the above consensus sequences, except for 18 different proteases which have lost the first conserved glycine. If a protein includes both the serine and the histidine active site signatures, the probability of it being a trypsin family serine protease is 100%.

ff) <u>WD Domain, G-Beta Repeats</u> (<u>WD domain</u>). A few of the validation sequences, and the sequences they validate, represent novel members of the WD domain/G-beta repeat family. Beta-transducin (G-beta) is one of the three subunits (alpha, beta, and gamma) of the guanine nucleotide-binding proteins (G proteins) which act as intermediaries in the transduction of signals generated by transmembrane receptors (Gilman, *Annu. Rev. Biochem.* (1987) 56:615). The alpha subunit binds to and hydrolyzes GTP; the functions of the beta and gamma subunits are less clear but they seem to be required for the replacement of GDP by GTP as well as for membrane anchoring and receptor recognition.

In higher eukaryotes, G-beta exists as a small multigene family of highly conserved proteins of about 340 amino acid residues. Structurally, G-beta consists of eight tandem repeats of about 40 residues, each containing a central Trp-Asp motif (this type of repeat is sometimes called a WD-40 repeat). Such a repetitive segment has been shown to exist in a number of other proteins including: human LIS1, a neuronal protein involved in type-1 lissencephaly; and mammalian coatomer beta' subunit (beta'-COP), a component of a cytosolic protein complex that reversibly associates with Golgi membranes to form vesicles that mediate biosynthetic protein transport.

The consensus pattern for the WD domain/G-Beta repeat family is: [LIVMSTAC]-

[LIVMFYWSTAGC]-[LIMSTAG]-[LIVMSTAGC]-x(2)-[DN]-x(2)-[LIVMWSTAC]-x-[LIVMFSTAG]-W-[DEN]-[LIVMFSTAGCN].

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gg) wnt Family of Developmental Signaling Proteins (Wnt\_dev\_sign). Several of the validation sequences, and thus the sequences they validate, correspond to novel members of the wnt family of developmental signaling proteins. Wnt-1 (previously known as int-1), the seminal member of this family, (Nusse R., *Trends Genet.* (1988) 4:291) is a proto-oncogene induced by the integration of the mouse mammary tumor virus. It is thought to play a role in intercellular communication and seems to be a signalling molecule important in the development of the central nervous system (CNS). The sequence of wnt-1 is highly conserved in mammals, fish, and amphibians. Wnt-1 was found to be a member of a large family of related proteins (Nusse R., *et al.*, *Cell* (1992) 69:1073; McMahon A.P., *Trends Genet.* (1992) 8:1; Moon R.T., *BioEssays* (1993) 15:91) that are all thought to be developmental regulators. These proteins are known as wnt-2 (also known as irp), wnt-3, -3A, -4, -5A, -5B, -6, -7A, -7B, -8, -8B, -9 and -10. At least four members of this family are present in Drosophila; one of them, wingless (wg), is implicated in segmentation polarity.

All these proteins share the following features characteristics of secretory proteins: a signal peptide, several potential N-glycosylation sites and 22 conserved cysteines that are probably involved in disulfide bonds. The Wnt proteins seem to adhere to the plasma membrane of the secreting cells and are therefore likely to signal over only few cell diameters. The consensus pattern, which is based upon a highly conserved region including three cysteines, is as follows: C-K-C-H-G-[LIVMT]-S-G-x-C. All sequences known to belong to this family are detected by the provided consensus pattern.

hh) Protein Tyrosine Phosphatase (Y\_phosphatase). Several of the validation sequences, and thus the sequences they validate, represent a polynucleotide encoding a protein tyrosine kinase. Tyrosine specific protein phosphatases (EC 3.1.3.48) (PTPase) (Fischer et al., Science (1991) 253:401; Charbonneau et al., Annu. Rev. Cell Biol. (1992) 8:463; Trowbridge, J. Biol. Chem. (1991) 266:23517; Tonks et al., Trends Biochem. Sci. (1989) 14:497; and Hunter, Cell (1989) 58:1013) catalyze the removal of a phosphate group attached to a tyrosine residue. These enzymes are very important in the control of cell growth, proliferation, differentiation and transformation. Multiple forms of PTPase have been characterized and can be classified into two categories: soluble PTPases and transmembrane receptor proteins that contain PTPase domain(s).

Soluble PTPases include PTPN3 (H1) and PTPN4 (MEG), enzymes that contain an N-terminal band 4.1-like domain and could act at junctions between the membrane and cytoskeleton; PTPN6 (PTP-1C; HCP; SHP) and PTPN11 (PTP-2C; SH-PTP3; Syp), enzymes that contain two copies of the SH2 domain at its N-terminal extremity.

Dual specificity PTPases include DUSP1 (PTPN10; MAP kinase phosphatase-1; MKP-1) which dephosphorylates MAP kinase on both Thr-183 and Tyr-185; and DUSP2 (PAC-1), a nuclear enzyme that dephosphorylates MAP kinases ERK1 and ERK2 on both Thr and Tyr residues.

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Structurally, all known receptor PTPases are made up of a variable length extracellular domain, followed by a transmembrane region and a C-terminal catalytic cytoplasmic domain. Some of the receptor PTPases contain fibronectin type III (FN-III) repeats, immunoglobulin-like domains, MAM domains or carbonic anhydrase-like domains in their extracellular region. The cytoplasmic region generally contains two copies of the PTPAse domain. The first seems to have enzymatic activity, while the second is inactive but seems to affect substrate specificity of the first. In these domains, the catalytic cysteine is generally conserved but some other, presumably important, residues are not.

PTPase domains consist of about 300 amino acids. There are two conserved cysteines and the second one has been shown to be absolutely required for activity. Furthermore, a number of conserved residues in its immediate vicinity have also been shown to be important. The consensus pattern for PTPases is: [LIVMF]-H-C-x(2)-G-x(3)-[STC]-[STAGP]-x-[LIVMFY]; C is the active site residue.

ii)Zinc Finger. C2H2 Type (Zincfing C2H2). Several of the validation sequences, and thus the sequences they validate, correspond to polynucleotides encoding novel members of the of the C2H2 type zinc finger protein family. Zinc finger domains (Klug et al., Trends Biochem. Sci. (1987) 12:464; Evans et al., Cell (1988) 52:1; Payre et al., FEBS Lett. (1988) 234:245; Miller et al., EMBO J. (1985) 4:1609; and Berg, Proc. Natl. Acad. Sci. USA (1988) 85:99) are nucleic acid-binding protein structures first identified in the Xenopus transcription factor TFIIIA. These domains have since been found in numerous nucleic acid-binding proteins. A zinc finger domain is composed of 25 to 30 amino acid residues. Two cysteine or histidine residues are positioned at both extremities of the domain, which are involved in the tetrahedral coordination of a zinc atom. It has been proposed that such a domain interacts with about five nucleotides.

Many classes of zinc fingers are characterized according to the number and

positions of the histidine and cysteine residues involved in the zinc atom coordination. In the first class to be characterized, called C2H2, the first pair of zinc coordinating residues are cysteines, while the second pair are histidines. A number of experimental reports have demonstrated the zinc-dependent DNA or RNA binding property of some members of this class.

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Mammalian proteins having a C2H2 zipper include (number in parenthesis indicates number of zinc finger regions in the protein): basonuclin (6), BCL-6/LAZ-3 (6), erythroid krueppel-like transcription factor (3), transcription factors Sp1 (3), Sp2 (3), Sp3 (3) and Sp(4) 3, transcriptional repressor YY1 (4), Wilms' tumor protein (4), EGR1/Krox24 (3), EGR2/Krox20 (3), EGR3/Pilot (3), EGR4/AT133 (4), Evi-1 (10), GLI1 (5), GLI2 (4+), GLI3 (3+), HIV-EP1/ZNF40 (4), HIV-EP2 (2), KR1 (9+), KR2 (9), KR3 (15+), KR4 (14+), KR5 (11+), HF.12 (6+), REX-1 (4), ZfX (13), ZfY (13), Zfp-35 (18), ZNF7 (15), ZNF8 (7), ZNF35 (10), ZNF42/MZF-1 (13), ZNF43 (22), ZNF46/Kup (2), ZNF76 (7), ZNF91 (36), ZNF133 (3).

In addition to the conserved zinc ligand residues, it has been shown that a number of other positions are also important for the structural integrity of the C2H2 zinc fingers. (Rosenfeld *et al.*, *J. Biomol. Struct. Dyn.* (1993) 11:557) The best conserved position is found four residues after the second cysteine; it is generally an aromatic or aliphatic residue. The consensus pattern for C2H2 zinc fingers is: C-x(2,4)-C-x(3)-[LIVMFYWC]-x(8)-H-x(3,5)-H. The two C's and two H's are zinc ligands.

- jj) Zinc finger, C3HC4 type (RING finger), signature (Zincfing C3H4). SEQ ID NOS:3774 and 4477, and thus the sequences they validate, represent polynucleotides encoding a polypeptide having a C3HC4 type zinc finger signature. A number of eukaryotic and viral proteins contain this signature, which is primarily a conserved cysteine-rich domain of 40 to 60 residues (Borden K.L.B., et al., *Curr. Opin. Struct. Biol.* (1996) 6:395) that binds two atoms of zinc, and is probably involved in mediating protein-protein interactions. The 3D structure of the zinc ligation system is unique to the RING domain and is referred to as the "cross-brace" motif. The spacing of the cysteines in such a domain is C-x(2)-C-x(9 to 39)-C-x(1 to 3)-H-x(2 to 3)-C-x(2)-C-x(4 to 48)-C-x(2)-C. Proteins that include the C3HC4 domain include:
- 1) Mammalian V(D)J recombination activating protein (RAG1). RAG1 activates the rearrangement of immunoglobulin and T-cell receptor genes.
  - 2) Mouse rpt-1. Rpt-1 is a trans-acting factor that regulates gene expression directed

by the promoter region of the interleukin-2 receptor alpha chainor the LTR promoter region of HIV-1.

- 3) Human rfp. Rfp is a developmentally regulated protein that may function in male germ cell development. Recombination of the N-terminal section of rfp with a protein tyrosine kinase produces the ret transforming protein.
- 4) Human 52 Kd Ro/SS-A protein. A protein of unknown function from the Ro/SS-A ribonucleoprotein complex. Sera from patients with systemic lupus erythematosus or primary Sjogren's syndrome often contain antibodies that react with the Ro proteins.
  - 5) Human histocompatibility locus protein RING1.
- 6) Human PML, a probable transcription factor. Chromosomal translocation of PML with retinoic receptor alpha creates a fusion protein which is thecause of acute promyelocytic leukemia (APL).
  - 7) Mammalian breast cancer type 1 susceptibility protein (BRCA1) ([E1] http://bioinformatics.weizmann.ac.il/hotmolecbase/entries/brca1.htm).
    - 8) Mammalian cbl proto-oncogene.

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- 9) Mammalian bmi-1 proto-oncogene.
- 10) Vertebrate CDK-activating kinase (CAK) assembly factor MAT1, a protein that stabilizes the complex between the CDK7 kinase and cyclin H (MAT1 stands for 'Menage A Trois').
- 11) Mammalian mel-18 protein. Mel-18 which is expressed in a variety of tumorcells is a transcriptional repressor that recognizes and bind a specific DNA sequence.
- 12) Mammalian peroxisome assembly factor-1 (PAF-1) (PMP35), which is somewhat involved in the biogenesis of peroxisomes. In humans, defects in PAF-1 are responsible for a form of Zellweger syndrome, an autosomal recessivedisorder associated with peroxisomal deficiencies.
  - 13) Human MAT1 protein, which interacts with the CDK7-cyclin H complex.
  - 14) Human RING1 protein.
  - 15) Xenopus XNF7 protein, a probable transcription factor.
- 30 16) Trypanosoma protein ESAG-8 (T-LR), which may be involved in the postranscriptional regulation of genes in VSG expression sites or may interact with adenylate cyclase to regulate its activity.
  - 17) Drosophila proteins Posterior Sex Combs (Psc) and Suppressor two of zeste

(Su(z)2). The two proteins belong to the Polycomb group of genes needed to maintain the segment-specific repression of homeotic selector genes.

- 18) Drosophila protein male-specific msl-2, a DNA-binding protein which is involved in X chromosome dosage compensation (the elevation of transcription of the male single X chromosome).
- 19) Arabidopsis thaliana protein COP1 which is involved in the regulation ofphotomorphogenesis.
  - 20) Fungal DNA repair proteins RAD5, RAD16, RAD18 and rad8.
- 21) Herpesviruses trans-acting transcriptional protein ICP0/IE110. This protein
  which has been characterized in many different herpesviruses is a trans-activator and/or repressor of the expression of many viral and cellular promoters.
  - 22) Baculoviruses protein CG30.
  - 23) Baculoviruses major immediate early protein (PE-38).
  - 24) Baculoviruses immediate-early regulatory protein IE-N/IE-2.
  - 25) Caenorhabditis elegans hypothetical proteins F54G8.4, R05D3.4 and T02C1.1.
  - 26) Yeast hypothetical proteins YER116c and YKR017c.

The signature pattern for the C3HC4 finger is based on the central region of the domain:

Consensus pattern: C-x-H-x-[LIVMFY]-C-x(2)-C-[LIVMYA].

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### Example 4: Differential Expression of Polynucleotides of the Invention: Description of Libraries and Detection of Differential Expression

The relative expression levels of the polynucleotides of the invention was assessed in several libraries prepared from various sources, including cell lines and patient tissue samples. Table 4 provides a summary of these libraries, including the shortened library name (used hereafter), the mRNA source used to prepared the cDNA library, the "nickname" of the library that is used in the tables below (in quotes), and the approximate number of clones in the library.

### 30 Table 4 Description of cDNA Libraries

Library	Description	Number of
(lib #)		Clones in this
	T 10 I	Clustering
Li	Km12 L4	

Library (lib#)	Description	Number of Clones in this Clustering
	Human Colon Cell Line, High Metastatic Potential (derived from Km12C) "High Colon"	307133
2	Km12C Human Colon Cell Line, Low Metastatic Potential "Low Colon"	284755
3	MDA-MB-231 Human Breast Cancer Cell Line, High Metastatic Potential; micrometastases in lung "High Breast"	326937
4	MCF7 Human Breast Cancer Cell, Non Metastatic "Low Breast"	318979
8	MV-522 Human Lung Cancer Cell Line, High Metastatic Potential "High Lung"	223620
9	UCP-3 Human Lung Cancer Cell Line, Low Metastatic Potential "Low Lung"	312503
12	Human microvascular endothelial cells (HMEC) – Untreated PCR (OligodT) cDNA library	41938
13	Human microvascular endothelial cells (HMEC) – Basic fibroblast growth factor (bFGF) treated PCR (OligodT) cDNA library	42100
14	Human microvascular endothelial cells (HMEC) – Vascular endothelial growth factor (VEGF) treated PCR (OligodT) cDNA library	42825
15	Normal Colon – UC#2 Patient PCR (OligodT) cDNA library "Normal Colon Tumor Tissue"	34285
16	Colon Tumor – UC#2 Patient PCR (OligodT) cDNA library "Normal Colon Tumor Tissue"	35625
17	Liver Metastasis from Colon Tumor of UC#2 Patient PCR (OligodT) cDNA library "High Colon Metastasis Tissue"	36984
18	Normal Colon – UC#3 Patient PCR (OligodT) cDNA library "Normal Colon Tumor Tissue"	36216
19	Colon Tumor – UC#3 Patient PCR (OligodT) cDNA library "High Colon Tumor Tissue"	41388
20	Liver Metastasis from Colon Tumor of UC#3 Patient PCR (OligodT) cDNA library "High Colon Metastasis Tissue"	30956

The KM12L4 and KM12C cell lines are described in Example 1 above. The MDA-MB-231 cell line was originally isolated from pleural effusions (Cailleau, *J. Natl. Cancer. Inst.* (1974) 53:661), is of high metastatic potential, and forms poorly differentiated

adenocarcinoma grade II in nude mice consistent with breast carcinoma. The MCF7 cell line was derived from a pleural effusion of a breast adenocarcinoma and is non-metastatic. The MV-522 cell line is derived from a human lung carcinoma and is of high metastatic potential. The UCP-3 cell line is a low metastatic human lung carcinoma cell line; the MV-522 is a high metastatic variant of UCP-3. These cell lines are well-recognized in the art as models for the study of human breast and lung cancer (see, e.g., Chandrasekaran et al., Cancer Res. (1979) 39:870 (MDA-MB-231 and MCF-7); Gastpar et al., J Med Chem (1998) 41:4965 (MDA-MB-231 and MCF-7); Ranson et al., Br J Cancer (1998) 77:1586 (MDA-MB-231 and MCF-7); Kuang et al., Nucleic Acids Res (1998) 26:1116 (MDA-MB-231 and MCF-7); Varki et al., Int J Cancer (1987) 40:46 (UCP-3); Varki et al., Tumour Biol. (1990) 11:327; (MV-522 and UCP-3); Varki et al., Anticancer Res. (1990) 10:637; (MV-522); Kelner et al., Anticancer Res (1995) 15:867 (MV-522); and Zhang et al., Anticancer Drugs (1997) 8:696 (MV522)). The samples of libraries 15-20 are derived from two different patients (UC#2, and UC#3). The bFGF-treated HMEC were prepared by incubation with bFGF at 10ng/ml for 2 hrs; the VEGF-treated HMEC were prepared by incubation with 20ng/ml BEGF for 2 hrs. Following incubation with the respective growth factor, the cells were washed and lysis buffer added for RNA preparation.

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20 Each of the libraries is composed of a collection of cDNA clones that in turn are representative of the mRNAs expressed in the indicated mRNA source. In order to facilitate the analysis of the millions of sequences in each library, the sequences were assigned to clusters. The concept of "cluster of clones" is derived from a sorting/grouping of cDNA clones based on their hybridization pattern to a panel of roughly 300 7bp 25 oligonucleotide probes (see Drmanac et al., Genomics (1996) 37(1):29). Random cDNA clones from a tissue library are hybridized at moderate stringency to 300 7bp oligonucleotides. Each oligonucleotide has some measure of specific hybridization to that specific clone. The combination of 300 of these measures of hybridization for 300 probes equals the "hybridization signature" for a specific clone. Clones with similar sequence will 30 have similar hybridization signatures. By developing a sorting/grouping algorithm to analyze these signatures, groups of clones in a library can be identified and brought together computationally. These groups of clones are termed "clusters". Depending on the stringency of the selection in the algorithm (similar to the stringency of hybridization in a

classic library cDNA screening protocol), the "purity" of each cluster can be controlled. For example, artifacts of clustering may occur in computational clustering just as artifacts can occur in "wet-lab" screening of a cDNA library with 400 bp cDNA fragments, at even the highest stringency. The stringency used in the implementation of cluster herein provides groups of clones that are in general from the same cDNA or closely related cDNAs. Closely related clones can be a result of different length clones of the same cDNA, closely related clones from highly related gene families, or splice variants of the same cDNA.

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Differential expression for a selected cluster was assessed by first determining the number of cDNA clones corresponding to the selected cluster in the first library (Clones in 1st), and the determining the number of cDNA clones corresponding to the selected cluster in the second library (Clones in 2<sup>nd</sup>). Differential expression of the selected cluster in the first library relative to the second library is expressed as a "ratio" of percent expression between the two libraries. In general, the "ratio" is calculated by: 1) calculating the percent expression of the selected cluster in the first library by dividing the number of clones corresponding to a selected cluster in the first library by the total number of clones analyzed from the first library; 2) calculating the percent expression of the selected cluster in the second library by dividing the number of clones corresponding to a selected cluster in a second library by the total number of clones analyzed from the second library; 3) dividing the calculated percent expression from the first library by the calculated percent expression from the second library. If the "number of clones" corresponding to a selected cluster in a library is zero, the value is set at 1 to aid in calculation. The formula used in calculating the ratio takes into account the "depth" of each of the libraries being compared, i.e., the total number of clones analyzed in each library.

In general, a polynucleotide is said to be significantly differentially expressed between two samples when the ratio value is greater than at least about 2, preferably greater than at least about 3, more preferably greater than at least about 5, where the ratio value is calculated using the method described above. The significance of differential expression is determined using a z score test (Zar, <u>Biostatistical Analysis</u>, Prentice Hall, Inc., USA, "Differences between Proportions," pp 296-298 (1974).

Example 5: Polynucleotides Differentially Expressed in High Metastatic Potential

Breast Cancer Cells Versus Low Metastatic Breast Cancer Cells

A number of polynucleotide sequences have been identified that are differentially expressed between cells derived from high metastatic potential breast cancer tissue and low metastatic breast cancer cells. Expression of these sequences in breast cancer can be valuable in determining diagnostic, prognostic and/or treatment information. For example, sequences that are highly expressed in the high metastatic potential cells can be indicative of increased expression of genes or regulatory sequences involved in the metastatic process. A patient sample displaying an increased level of one or more of these polynucleotides may thus warrant more aggressive treatment. In another example, sequences that display higher expression in the low metastatic potential cells can be associated with genes or regulatory sequences that inhibit metastasis, and thus the expression of these polynucleotides in a sample may warrant a more positive prognosis than the gross pathology would suggest.

The differential expression of these polynucleotides can be used as a diagnostic marker, a prognostic marker, for risk assessment, patient treatment and the like. These polynucleotide sequences can also be used in combination with other known molecular and/or biochemical markers.

The following tables summarize polynucleotides that are differentially expressed between high metastatic potential breast cancer cells and low metastatic potential breast cancer cells.

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**Table 5.** Differentially expressed polynucleotides: Higher expression in high metastatic potential breast cancer (lib3) relative to low metastatic breast cancer cells (lib4)

SEQ ID NOS:	Sequence Name	Cluster ID	Lib3 clones	Lib4 clones	lib3/lib4	Zscore
45	RTA00000197AR.f.12.1	3513	17	5	3.317240	2.287632
146	RTA00000185AF.a.19.2	5749	9	0	8.780930	2.629923
154	RTA00000196F.e.7.1	1039	10	2	4.878294	1.978215
159	RTA00000182AF.1.12.1	1027	41	17	2.353059	2.926571
165	RTA00000192AF.g.23.1	6455	6	0	5.853953	2.011224
174	RTA00000181AF.e.22.3	3442	17	4	4.146550	2.562391
183	RTA00000198AF.c.17.1	6923	6	0	5.853953	2.011224
364	RTA00000187AF.g.13.1	2991	10	1	9.756589	2.371428
366	RTA00000192AF.o.19.1	3549	10	1	9.756589	2.371428
387	RTA00000191AF.j.14.1	1002	42	20	2.048883	2.570309
496	RTA00000190AF.p.3.1	2378	34	0	33.17240	5.588184
510	RTA00000178AF.n.23.1	3298	12	1	11.70790	2.729313
512	RTA00000191AF.c.3.1	3549	10	1	9.756589	2.371428
529	RTA00000178AF.b.13.1	3114	9	1	8.780930	2.174815
560	RTA00000184AF.i.23.3	1577	25	3	8.130490	3.903813
606	RTA00000179AR.e.01.4	2493	33	9	3.577416	3.469507

SEQ ID	Sequence Name	Cluster	Lib3	Lib4	lib3/lib4	Zscore
NOS:	DT 4 00000107F : 10 1	ID	clones	clones	12 (5000	2.050026
644	RTA00000197F.i.12.1	3605	14	1	13.65922	3.050936
646	RTA00000186AF.d.24.1	3114	9	1	8.780930	2.174815
754	RTA00000187AF.I.11.1	4482	14	3	4.553074	2.374769
875	RTA00000401F.m.02.1	1573	34	7	4.738914	3.982056
902	RTA00000422F.c.02.1	2902	18	5	3.512372	2.443314
921	RTA00000418F.m.19.1	8890	6	0	5.853953	2.011224
942	RTA00000351R.g.11.1	3077	17	4	4.146550	2.562391
1095	RTA00000408F.1.13.1	4423	12	1	11.70790	2.729313
1104	RTA00000404F.m.10.2	779	60	22	2.660887	3.974953
1131	RTA00000400F.k.22.1	2512	7	0	6.829612	2.235371
1170	RTA00000340R.f.05.1	3202	<b>18</b>	3	5.853953	2.998867
1184	RTA00000422F.c.17.1	1360	26	11	2.306102	2.226876
1205	RTA00000118A.a.23.1	3500	12	3	3.902635	2.018050
1354	RTA00000401F.k.14.1	211	121	43	2.745458	5.856098
2124	RTA00000191AF.j.14.1	1002	42	20	2.048883	2.570309
1535	RTA00000405F.1.11.1	2055	29	8	3.536763	3.213373
1751	RTA00000423F.j.03.1	5391	6	0	5.853953	2.011224
1764	RTA00000399F.o.24.1	2272	17	1	16.58620	3.483575
1777	RTA00000401F.j.15.1	3061	14	0	13.65922	3.428594
1795	RTA00000348R.o.12.1	2263	6	0	5.853953	2.011224
1869	RTA00000340F.f.22.1	1720	57	8	6.951569	5.855075
1882	RTA00000401F.g.22.1	1147	28	12	2.276537	2.294031
1890	RTA00000346F.o.16.1	176	170	44	3.769591	8.366611
1915	RTA00000400F.g.02.1	1508	21	5	4.097767	2.879196
2040	RTA00000527F.j.02.2	4896	11	0	10.73224	2.974502
2059	RTA00000528F.i.22.1	2478	17	5	3.317240	2.287632
2223	RTA00000528F.j.11.1	1070	26	6	4.227855	3.289393
2245	RTA00000527F.k.09.1	213	17	4	4.146550	2.562391
2300	RTA00000528F.b.03.1	2078	11	2	5.366124	2.174565
2325	RTA00000525F.d.13.1	349	77	1	75.12573	8.384408
2462	RTA00000528F.g.22.2	920	76	32	2.317189	4.010278
2488	RTA00000528F.h.02.2	1701	18	4	4.390465	2.714073
2492	RTA00000528F.c.11.1	1701	18	4	4.390465	2.714073
- 1/2	1111100000000001.0.11.1	1,01	. 0	•		, I 10, J

**Table 6**. Differentially expressed polynucleotides: Higher expression in low metastatic breast cancer cells (lib4) relative to high metastatic potential breast cancer (lib3)

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SEQ ID	Sequence Name	Cluster ID	Lib4	Lib 3	lib4/lib3	Zscore
NOS:			Clones	Clones		
15	RTA00000177AR.n.8.1	4188	4	13	3.33108	1.99126
36	RTA00000181AF.p.4.3	40392	1	8	8.19958	2.03713
44	RTA00000199F.f.08.2	12445	0	11	11.2744	3.05623
89	RTA00000177AF.n.8.3	4188	4	13	3.33108	1.99126
172	RTA00000186AF.p.09.2	6879	3	43	14.6909	5.83444
203	RTA00000201F.d.09.1	1827	37	157	4.34910	8.71727
261	RTA00000192AF.a.24.1	13183	0	7	7.17463	2.30057
419	RTA00000182AF.j.20.1	4769	2	20	10.2494	3.68254
420	RTA00000181AF.c.11.1	4769	2	20	10.2494	3.68254
503	RTA00000197AF.k.9.1	3138	1	10	10.2494	2.45316
552	RTA00000193AF.b.24.1	35	386	1967	5.22298	33.2328
564	RTA00000200AF.g.18.1	1600	0	23	23.5738	4.64683

SEQ ID NOS:	Sequence Name	Cluster ID	Lib4 Clones	Lib 3 Clones	lib4/lib3	Zscore
570	RTA00000183AF.a.19.2	3788	0	6	6.14969	2.07158
590	RTA00000190AF.d.2.1	2444	26	55	2.16815	3.22244
693	RTA00000198F.m.12.1	4	987	2807	2.91492	30.3819
707	RTA00000179AF.p.15.1	5622	2	13	6.66216	2.62993
711	RTA00000198F.i.2.1	8076	0	9	9.22453	2.70385
726	RTA00000200R.f.10.1	4	987	2807	2.91492	30.3819
746	RTA00000178AF.i.01.2	4	987	2807	2.91492	30.3819
756	RTA00000404F.a.02.1	9738	1	13	13.3243	2.98623
990	RTA00000126A.o.23.1	6268	3	18	6.14969	3.11179
1122	RTA00000401F.o.06.1	2679	4	23	5.89345	3.52846
1142	RTA00000411F.a.15.1	73812	0	12	12.2993	3.21838
1286	RTA00000345F.n.12.1	7337	3	16	5.46639	2.80694
1289	RTA00000126A.g.7.1	1902	13	48	3.78442	4.45002
1435	RTA00000345F.e.11.1	4392	1	8	8.19958	2.03713
1860	RTA00000340F.p.18.1	287	6	173	29.5526	12.5749
1933	RTA00000400F.f.11.1	4088	0	82	84.0457	9.05778
1934	RTA00000341F.o.12.1	2883	9	21	2.39154	2.07600
1979	RTA00000122A.h.24.1	48	412	1020	2.53749	16.5262
1980	RTA00000346F.j.13.1	5337	5	17	3.48482	2.40321
2007	RTA00000400F.g.08.1	1275	15	32	2.18655	2.41857
2023	RTA00000523F.d.19.1	26489	1	8	8.19958	2.03713
2409	RTA00000526F.d.17.1	2757	4	16	4.09979	2.51500
1220	RTA00000528F.d.04.1	2395	12	37	3.16025	3.51521

Example 6: Polynucleotides Differentially Expressed in High Metastatic Potential Lung
Cancer Cells Versus Low Metastatic Lung Cancer Cells

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A number of polynucleotide sequences have been identified that are differentially expressed between cells derived from high metastatic potential lung cancer tissue and low metastatic lung cancer cells. Expression of these sequences in lung cancer tissue can be valuable in determining diagnostic, prognostic and/or treatment information. For example, sequences that are highly expressed in the high metastatic potential cells are associated can be indicative of increased expression of genes or regulatory sequences involved in the metastatic process. A patient sample displaying an increased level of one or more of these polynucleotides may thus warrant more aggressive treatment. In another example, sequences that display higher expression in the low metastatic potential cells can be associated with genes or regulatory sequences that inhibit metastasis, and thus the expression of these polynucleotides in a sample may warrant a more positive prognosis than the gross pathology would suggest.

The differential expression of these polynucleotides can be used as a diagnostic marker, a prognostic marker, for risk assessment, patient treatment and the like. These

polynucleotide sequences can also be used in combination with other known molecular and/or biochemical markers.

The following tables summarize polynucleotides that are differentially expressed between high metastatic potential lung cancer cells and low metastatic potential lung cancer cells:

**Table 7** Differentially expressed polynucleotides: Higher expression in high metastatic potential lung cancer cells (lib8) relative to low metastatic lung cancer cells (lib9)

(1109)						
SEQ ID	Sequence Name	Cluster ID	Lib8	Lib9	lib8/lib9	Zscore
NO:			clones	clones		
10	RTA00000198AF.n.16.1	3721	9	0	12.5772	3.20845
54	RTA00000200F.o.22.1	983	8	1	11.1797	2.53243
65	RTA00000198AF.m.16.1	51	348	66	7.36849	17.4315
171	RTA00000198R.c.07.1	19181	6	0	8.38484	2.48169
203	RTA00000201F.d.09.1	1827	45	15	4.19242	5.09891
252	RTA00000181AF.e.18.3	8	1355	122	15.5211	39.0214
253	RTA00000181AF.e.17.3	8	1355	122	15.5211	39.0214
285	RTA00000181AR.j.14.3	5399	12	0	16.7696	3.80239
419	RTA00000182AF.j.20.1	4769	10	3	4.65824	2.29362
420	RTA00000181AF.c.11.1	4769	10	3	4.65824	2.29362
491	RTA00000196F.k.11.1	3	986	392	3.51507	22.4683
525	RTA00000198AF.c.7.1	19181	6	0	8.38484	2.48169
526	RTA00000185AF.e.20.1	5865	12	0	16.7696	3.80239
552	RTA00000193AF.b.24.1	35	868	11	110.273	34.2897
693	RTA00000198F.m.12.1	4	506	209	3.38335	15.7309
700	RTA00000183AF.i.18.2	40129	7	0	9.78231	2.74441
726	RTA00000200R.f.10.1	4	506	209	3.38335	15.7309
742	RTA00000177AF.m.1.1	14929	23	16	2.00886	2.02420
746	RTA00000178AF.i.01.2	4	506	209	3.38335	15.7309
861	RTA00000339F.f.11.1	5832	5	0	6.98736	2.18988
990	RTA00000126A.o.23.1	6268	5	0	6.98736	2.18988
1088	RTA00000399F.f.11.1	40167	8	0	11.1797	2.98512
1288	RTA00000423F.e.11.1	2566	11	2	7.68610	2.85611
1417	RTA00000339F.o.07.1	2566	11	2	7.68610	2.85611
1444	RTA00000419F.p.03.1	1937	10	3	4.65824	2.29362
1454	RTA00000340F.I.05.1	38935	7	0	9.78231	2.74441
1570	RTA00000403F.a.17.1	13686	8	0	11.1797	2.98512
1597	RTA00000401F.n.23.1	1552	8	1	11.1797	2.53243
1979	RTA00000122A.h.24.1	48	342	155	3.08345	12.2138
2024	RTA00000528F.b.23.1	1605	22	4	7.68610	4.23808
2034	RTA00000528F.m.16.1	4468	6	1	8.38484	1.97787
2126	RTA00000526F.d.01.1	4468	6	1	8.38484	1.97787

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Table 8 Differentially expressed polynucleotides: Higher expression in low metastatic lung cancer cells (lib9) relative to high metastatic potntial lung cancer cells

	- 1 6					
SEQ ID	Sequence Name	Cluster	Lib8	Lib9	lib9/lib8	Zscore
NO:		ID	clones	clones		
174	RTA00000181AF.e.22.3	3442	5	23	3.291654	2.368262
254	RTA00000178AF.n.2.1	17083	0	8	5.724617	2.034117
466	RTA00000177AF.p.20.1	4141	4	27	4.830145	3.070829
571	RTA00000198AF.b.14.1	801	16	46	2.057284	2.411087
574	RTA00000192AF.f.3.1	5257	5	25	3.577885	2.596857
590	RTA00000190AF.d.2.1	2444	12	37	2.206362	2.299984
922	RTA00000399F.I.14.1	3354	5	20	2.862308	1.998763
1355	RTA00000406F.m.04.1	14959	11	41	2.667151	2.865855
1422	RTA00000405F.h.07.2	4984	3	16	3.816411	2.058861
2007	RTA00000400F.g.08.1	1275	10	42	3.005423	3.147111
2038	RTA00000527F.p.06.1	1292	8	33	2.951755	2.724411
2245	RTA00000527F.k.09.1	213	137	403	2.104945	7.661033

Example 7: Polynucleotides Differentially Expressed in High Metastatic Potential Colon
Cancer Cells Versus Low Metastatic Colon Cancer Cells

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A number of polynucleotide sequences have been identified that are differentially expressed between cells derived from high metastatic potential colon cancer tissue and low metastatic colon cancer cells. Expression of these sequences in colon cancer tissue can be valuable in determining diagnostic, prognostic and/or treatment information. For example, sequences that are highly expressed in the high metastatic potential cells can be indicative of increased expression of genes or regulatory sequences involved in the metastatic process. A patient sample displaying an increased level of one or more of these polynucleotides may thus warrant more aggressive treatment. In another example, sequences that display higher expression in the low metastatic potential cells can be associated with genes or regulatory sequences that inhibit metastasis, and thus the expression of these polynucleotides in a sample may warrant a more positive prognosis than the gross pathology would suggest.

The differential expression of these polynucleotides can be used as a diagnostic marker, a prognostic marker, for risk assessment, patient treatment and the like. These polynucleotide sequences can also be used in combination with other known molecular and/or biochemical markers.

The following table summarizes identified polynucleotides with differential expression between high metastatic potential colon cancer cells and low metastatic potential colon cancer cells:

Table 9 Differentially expressed polynucleotides: Higher expression in high metastatic potential colon cancer (lib1) relative to low metastatic colon cancer cells (lib2)

SEQ ID	Sequence Name	Cluster ID	Lib1	Lib2	lib1/lib2	,
NO:	ocquence rame	Cluster 1D	ciones	clones	110171102	Zscore
228	RTA00000187AR.h.15.2	6660	7	0	6.489973399	2.169320547
280	RTA00000193AF.b.18.1	7542	8	0	7.417112456	2.36964728
355	RTA00000184AR.b.24.1	5777	9	1	8.344251513	2.09555146
491	RTA00000196F.k.11.1	3	5268	2164	2.257009497	32.96556438
603	RTA00000183AR.d.11.3	6420	8	0	7.417112456	2.36964728
680	RTA00000177AF.f.10.1	6420	8	0	7.417112456	2.36964728
752	RTA00000192AF.o.7.1	5275	11	2	5.099264814	2.083995588
753	RTA00000192AF.o.17.1	5275	11	2	5.099264814	2.083995588
1241	RTA00000346F.I.13.1	7542	8	0	7.417112456	2.36964728
1264	RTA00000349R.g.10.1	5777	9	1	8.344251513	2.09555146
1401	RTA00000421F.m.14.1	3524	21	6	3.2449867	2.499690198
1442	RTA00000350R.g.10.1	9026	7	0	6.489973399	2.169320547
1514	RTA00000399F.o.06.1	13574	7	0	6.489973399	2.169320547
1851	RTA00000421F.a.06.1	2385	27	4	6.258188635	3.743586088
1915	RTA00000400F.g.02.1	1508	46	17	2.508729213	3.230059264
2024	RTA00000528F.b.23.1	1605	36	11	3.034273278	3.244010467
2066	RTA00000528F.m.12.1	5768	12	0		3.046665462

5 Table 10 Differentially expressed polynucleotides: Higher expression in low metastatic colon cancer cells (lib2)relative to high metastatic potential colon cancer (lib1)

	(1102)	•	_		-	Mon cancer (II
	ID Sequence Name	Cluster	Libl	Lib2	lib2/lib1	Zscore
NOS		ID	clones	clones		
33	RTA00000178AR.a.20.1	945	9	21	2.51670	2.21703
250	RTA00000192AF.j.21.1	2289	3	23	8.26916	3.92187
282	RTA00000193AF.c.15.1	3726	3	14	5.03340	2.58312
370	RTA00000179AF.c.15.3	2995	4	13	3.50540	2.09770
387	RTA00000191AF.j.14.1	1002	12	65	5.84234	6.26259
443	RTA00000197AR.i.17.1	3516	5	17	3.66719	2.52439
460	RTA00000179AF.c.15.1	2995	4	13	3.50540	2.09770
545	RTA00000196F.a.2.1	3575	5	14	3.02004	2.00158
560	RTA00000184AF.i.23.3	1577	12	40	3.59528	4.01991
703	RTA00000198F.I.09.1	3611	2	13	7.01081	2.73040
704	RTA00000190AF.o.12.1	3438	5	14	3.02004	2.00158
1095	RTA00000408F.1.13.1	4423	1	8	8.62869	2.11495
1104	RTA00000404F.m.10.2	779	27	54	2.15717	3.23169
1205	RTA00000118A.a.23.1	3500	3	13	4.67387	2.40298
1354	RTA00000401F.k.14.1	211	109	206	2.03843	6.08597
1387	RTA00000191AF.j.14.1	1002	12	65	5.84234	6.26259
1734	RTA00000345F.b.17.1	945	9	21	2.51670	2.21703
1742	RTA00000422F.b.22.1	2368	14	34	2.61942	3.00662
1954	RTA00000401F.j.23.1	570	59	148	2.70560	6.66631
2262	RTA00000527F.o.12.1	688	29	60	2.23155	3.53946
2325	RTA00000525F.d.13.1	349	69	138	2.15717	5.27497

### Example 8: Polynucleotides Differentially Expressed in High Metastatic Potential Colon Cancer Patient Tissue Versus Normal Patient Tissue

A number of polynucleotide sequences have been identified that are differentially expressed between cells derived from high metastatic potential colon cancer tissue and normal tissue. Expression of these sequences in colon cancer tissue can be valuable in determining diagnostic, prognostic and/or treatment information. For example, sequences that are highly expressed in the high metastatic potential cells are associated can be indicative of increased expression of genes or regulatory sequences involved in the advanced disease state which involves processes such as angiogenesis, dedifferentiation, cell replication, and metastasis. A patient sample displaying an increased level of one or more of these polynucleotides may thus warrant more aggressive treatment.

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The differential expression of these polynucleotides can be used as a diagnostic marker, a prognostic marker, for risk assessment, patient treatment and the like. These polynucleotide sequences can also be used in combination with other known molecular and/or biochemical markers.

The following tables summarize polynucleotides that are differentially expressed between high metastatic potential colon cancer cells and normal colon cells:

Table 11 Differentially expressed polynucleotides isolated from samples from two patients (UC#2 and UC#3): Higher expression in high metastatic potential colon tissue (UC#2:lib17; UC#3:lib20) vs. normal colon tissue (UC#2:lib15; UC#3:lib18)

SEQ ID NO:	Sequence Name	Cluster ID	lib15 clones	lib17 clones	lib17/lib15	Zscore
65	RTA00000198AF.m.16.1	51	1	10	9.27022	2.28830
1780	RTA00000118A.j.24.1	18	4	23	5.33037	3.27028
1899	RTA00000345F.j.09.1	13	14	80	5.29727	6.34580
SEQ ID NO:	Sequence Name	Cluster ID	lib18 clones	lib20 clones	lib20/lib18	Zscore
1899	RTA00000345F.j.09.1	13	12	23	2.24234	2.16077

25 **Table 12** Differentially expressed polynucleotides isolated from samples from two patients (UC#2 and UC#3): Higher expression in normal colon tissue (UC#2:lib15; UC#3:lib18)vs. high metastatic potential colon tissue (UC#2:lib17; UC#3:lib20).

SEQ ID	Sequence Name	Cluster	Lib5	L1ib7	lib15/lib17	Z Score:
NO:		ID	Clones	Clones		>2.5899%; >1.96
491	RTA00000196F.k.11.1	3	242	26	10.04	13.78900072
SEQ ID	Sequence Name	Cluster	Lib18	Lib20	lib18/lib20	Zscore

NO: 491	RTA00000196F.k.11.1	ID 3	clones 409	clones 46	7.59993	15.3998

# Example 9: Polynucleotides Differentially Expressed in High Colon Tumor Potential Patient Tissue Versus Metastasized Colon Cancer Patient Tissue

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A number of polynucleotide sequences have been identified that are differentially expressed between cells derived from high tumor potential colon cancer tissue and cells derived from high metastatic potential colon cancer cells. Expression of these sequences in colon cancer tissue can be valuable in determining diagnostic, prognostic and/or treatment information associated with the transformation of precancerous tissue to malignant tissue. This information can be useful in the prevention of achieving the advanced malignant state in these tissues, and can be important in risk assessment for a patient.

The following table summarizes identified polynucleotides with differential expression between high tumor potential colon cancer tissue and cells derived from high metastatic potential colon cancer cells:

 Table 13
 Differentially expressed polynucleotides: High tumor potential colon tissue

 vs. metastatic colon tissue

	tatio colon nasac					
SEQ ID	Sequence Name	Cluster ID	L19	L20	lib19/lib20	Zscore
NO:			clones	clones		
252	RTA00000181AF.e.18.3	8	14	1	10.4712	2.56699
253	RTA00000181AF.e.17.3	8	14	1	10.4712	2.56699
491	RTA00000196F.k.11.1	3	328	46	5.33318	11.8962
581	RTA00000191AF.p.3.2	17	24	2	8.97535	3.41950
693	RTA00000198F.m.12.1	4	26	8	2.43082	2.09705
726	RTA00000200R.f.10.1	4	26	8	2.43082	2.09705
746	RTA00000178AF.i.01.2	4	26	8	2.43082	2.09705
1780	RTA00000118A.j.24.1	18	80	13	4.60274	5.51440
1899	RTA00000345F.j.09.1	13	148	23	4.81287	7.68618
	•					7.00010

### 20 <u>Example 10:</u> <u>Polynucleotides Differentially Expressed in High Tumor Potential Colon</u> <u>Cancer Patient Tissue Versus Normal Patient Tissue</u>

A number of polynucleotide sequences have been identified that are differentially expressed between cells derived from high tumor potential colon cancer tissue and normal tissue. Expression of these sequences in colon cancer tissue can be valuable in determining diagnostic, prognostic and/or treatment information associated with the prevention of achieving the malignant state in these tissues, and can be important in risk assessment for a

patient. For example, sequences that are highly expressed in the potential colon cancer cells are associated with or can be indicative of increased expression of genes or regulatory sequences involved in early tumor progression. A patient sample displaying an increased level of one or more of these polynucleotides may thus warrant closer attention or more frequent screening procedures to catch the malignant state as early as possible.

The following tables summarize polynucleotides that are differentially expressed between high metastatic potential colon cancer cells and normal colon cells:

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Table 14 Differentially expressed polynucleotides detected in samples from two patients (UC#2 and UC#3): Higher expression in tumor potential colon tissue (UC#2:lib16; UC#3:lib19)vs. normal colon tissue (UC#2:lib15; UC#3:lib18)

SEQ ID NO:	Sequence Name	Cluster ID	Lib15 clones	Lib16 clones	lib16/lib15	Zscore
1899	RTA00000345F.j.09.1	13	14	50	3.43709	4.22436
SEQ ID	Sequence Name	Cluster	Lib18	Lib19	lib19/lib18	Zscore
NO:		ID	clones	clones		
65	RTA00000198AF.m.16.1	51	0	14	12.2505	3.23250
252	RTA00000181AF.e.18.3	8	1	14	12.2505	2.84687
253	RTA00000181AF.e.17.3	8	1	14	12.2505	2.84687
581	RTA00000191AF.p.3.2	17	4	24	5.25021	3.24580
693	RTA00000198F.m.12.1	4	6	26	3.79182	2.98901
716	RTA00000200F.p.05.1	3984	0	7	6.12525	2.09621
726	RTA00000200R.f.10.1	4	6	26	3.79182	2.98901
746	RTA00000178AF.i.01.2	4	6	26	3.79182	2.98901
1780	RTA00000118A.j.24.1	18	10	80	7.00028	6.65963
1899	RTA00000345F.j.09.1	13	12	148	10.7921	9.86174

**Table 15** Differentially expressed polynucleotides: Higher expression in normal colon tissue (UC#2:lib15) vs. tumor potential colon tissue (UC#2:lib16)

SEQ ID	Sequence Name	Cluster	Lib15	Lib16	lib15/lib16	Zscore
NO:		ID	clones	clones		
491	RTA00000196F.k.11.1	3	242	39	6.44765	12.3988

Example 11: Polynucleotides Differentially Expressed in Growth Factor-Stimulated
Human Microvascular Endothelial Cells (HMEC) Relative to Untreated HMEC

A number of polynucleotide sequences have been identified that are differentially expressed between human microvascular endothelial cells (HMEC) that have been treated with growth factors relative to untreated HMEC.

Sequences that are differentially expressed between growth factor-treated HMEC and untreated HMEC can represent sequences encoding gene products involved in angiogenesis, metastasis (cell migration), and other development and oncogenic processes. For example, sequences that are more highly expressed in HMEC treated with growth factors (such as bFGF or VEGF) relative to untreated HMEC can serve as markers of

cancer cells of higher metastatic potential. Detection of expression of these sequences in colon cancer tissue can be valuable in determining diagnostic, prognostic and/or treatment information associated with the prevention of achieving the malignant state in these tissues, and can be important in risk assessment for a patient. A patient sample displaying an increased level of one or more of these polynucleotides may thus warrant closer attention or more frequent screening procedures to catch the malignant state as early as possible.

The following table summarizes identified polynucleotides with differential expression between growth factor-treated and untreated HMEC.

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10 **Table 16** Differentially expressed polynucleotides: Higher expression in bFGF treated HMEC (lib13) vs. untreated HMEC (lib12)

SEQ ID NO:	Sequence Name	 Lib12 clones		lib13/lib12	Zscore
648	RTA00000199F.i.9.1	25	52	2.07199	2.94741

**Table 17** Differentially expressed polynucleotides: Higher expression in VEGF treated HMEC (lib14) vs. untreated HMEC (lib12)

NO:	Sequence Name	Cluster ID	Lib12 clones	Lib14 clones	lib14/lib12	Zscore
648	RTA00000199F.i.9.1	7	25	67	2.62449	4.17666
1899	RTA00000345F.j.09.1	13	22	49	2.18114	2.99887

Example 12: Polynucleotides Differentially Expressed Across Multiple Libraries

A number of polynucleotide sequences have been identified that are differentially expressed between cancerous cells and normal cells across all three tissue types tested (*i.e.*, breast, colon, and lung). Expression of these sequences in a tissue or any origin can be valuable in determining diagnostic, prognostic and/or treatment information associated with the prevention of achieving the malignant state in these tissues, and can be important in risk assessment for a patient. These polynucleotides can also serve as non-tissue specific markers of, for example, risk of metastasis of a tumor. The following table summarizes identified polynucleotides that were differentially expressed but without tissue typespecificity in the breast, colon, and lung libraries tested.

**Table 18** Polynucleotides Differentially Expressed Across Multiple Library Comparisons

SEQ ID NO.	Cluster	Clones in 1st Lib	Clones in 2nd Lib	l Ratio	Cell or Tissue Sample and Cancer State Compared (Z Score)
2024	1605	lib1	lib2	lib1/lib2	colon: high met > low met
		36	11	3.0342732	(3.2440104)
		lib8	lib9	lib8/lib9	lung: high met > low met
		22	4	7.6861036	(4.2380835)
65	51	lib8	lib9	lib8/lib9	lung: high met > low met
		348	66	7.3684960	(17.431560)
		lib18	lib19	lib19/lib18	pt #3 colon: tumor > normal
		0	14	12.250507	(3.2325073)
		lib15	lib17	lib17/lib15	pt #2 colon: met > normal
		1	10	9.2702249	(2.2883061)
174	3442	lib8	lib9	lib9/lib8	lung: low met > high met
		5	23	3.2916548	(2.3682625)
		lib3	lib4	lib3/lib4	breast: high met > low met
		17	4	4.1465504	(2.5623912)
203	1827	lib8	lib9	lib8/lib9	lung: high met > low met
		45	15	4.1924201	(5.0989192)
		lib3	lib4	lib4/lib3	breast: low met > high met
		37	157	4.3491051	(8.7172773)
2245	213	lib8	lib9	lib9/lib8	lung: low met > high met
		137	403	2.1049458	(7.6610331)
		lib3	lib4	lib3/lib4	breast: high met > low met
		17	4	4.1465504	(2.5623912)
990	6268	lib8	lib9	lib8/lib9	lung: high met > low met
		5	0	6.9873669	(2.1898837)
		lib3	lib4	lib4/lib3	breast: low met > high met
		3	18	6.1496901	(3.1117967)
252	8	lib8	lib9	lib8/lib9	lung: high met > low met
		1355	122	15.521118	(39.021411)
		lib19	lib20	lib19/lib20	pt. #3 colon: tumor > met
		14	1	10.471247	(2.5669948)
		lib18	lib19	lib19/lib18	pt #3 colon: tumor > normal
		1	14	12.250507	(2.8468716)
253	8	lib8	lib9	lib8/lib9	lung: high met > low met
		1355	122	15.521118	(39.021411)
		lib19	lib20	lib19/lib20	pt. #3 colon: tumor > met
		14	1	10.471247	(2.5669948)
		lib18	lib19	lib19/lib18	pt #3 colon: tumor > normal
		1	14	12.250507	(2.8468716)
2325	349	lib3	lib4	lib3/lib4	breast: high met > low met
		<b>7</b> 7	1	75.125736	(8.3844087)
		lib1	lib2	lib2/lib1	colon: low met > high met
		69	138	2.1571737	(5.2749799)
			105		•

SEQ ID NO.	Cluster	Clones in 1s Lib	ct Clones in 2n Lib	d Ratio	Cell or Tissue Sample and Cancer State Compared (Z Score)
1095	4423	lib3	lib4	lib3/lib4	breast: high met > low met
		12	1	11.707907	(2.7293134)
		lib1	lib2	lib2/lib1	colon: low met > high met
		1	8	8.6286948	(2.1149516)
1124	779	lib3	lib4	lib3/lib4	breast: high met > low met
		60	22	2.6608879	(3.9749537)
		lib1	lib2	lib2/lib1	colon: low met > high met
		27	54	2.1571737	(3.2316908)
387	1002	lib3	lib4	lib3/lib4	breast: high met > low met
•		42	20	2.0488837	(2.5703094)
		lib1	lib2	lib2/lib1	colon: low met > high met
		12	65	5.8423454	(6.2625969)
419	4769	lib8	lib9	lib8/lib9	lung: high met > low met
		10	3	4.6582446	(2.2936274)
		lib3	lib4	lib4/lib3	breast: low met > high met
		2	20	10.249483	(3.6825426)
420	4769	lib8	lib9	lib8/lib9	lung: high met > low met
		10	3	4.6582446	(2.2936274)
		lib3	lib4	lib4/lib3	breast: low met > high met
1005		2	20	10.249483	(3.6825426)
1205	3500	lib3	lib4	lib3/lib4	breast: high met > low met
		12	3	3.9026356	(2.0180506)
		lib1	lib2	lib2/lib1	colon: low met > high met
401		3	13	4.6738763	(2.4029818)
491	3	lib1	lib2	lib1/lib2	colon: high met > low met
		5268	2164	2.2570094	(32.965564)
		lib8	lib9	lib8/lib9	lung: high met > low met
		986	392	3.5150733	(22.468331)
		lib19	lib20	lib19/lib20	pt #3 colon: tumor > met
		328	46	5.3331820	(11.896271)
		lib18	lib20	lib18/lib20	pt #3 colon: normal > met
		409	46	7.5999342	(15.399861)
		lib15	lib17	lib15/lib17	pt#2 colon: normal > met
		242	26	10.04	(13.789000)
		lib15 242	lib16	lib15/lib16	pt#2 colon: normal > tumor
552	35		39	6.44765	12.39883
JJ2	رر	lib8 868	lib9	lib8/lib9	lung: high met > low met
		lib3	11	110.27335	(34.289704)
		386	lib4	lib4/lib3	breast: low met > high met
560	1577	lib3	1967	5.2229880	(33.232871)
300	1311	25	lib4	lib3/lib4	breast: high met > low met
		43	3	8.1304909	(3.9038139)

SEQ ID NO.	Cluster	Clones in 1st Lib	Clones in 2nd Lib	Ratio	Cell or Tissue Sample and Cancer State Compared (Z Score)
		lib1	lib2	lib2/lib1	colon: low met > high met
		12	40	3.5952895	(4.0199130)
581	17	lib19	lib20	lib19/lib20	pt #3 colon: tumor > met
		24	2	8.9753551	(3.4195074)
		lib18	lib19	lib19/lib18	pt #3 colon: tumor > normal
		4	24	5.2502174	(3.2458055)
590	2444	lib3	lib4	lib4/lib3	breast: low met > high met
		26	55	2.1681599	(3.2224421)
		lib8	lib9	lib9/lib8	lung: low met > high met
		12	37	2.2063628	(2.2999846)
1354	211	lib3	lib4	lib3/lib4	breast: high met > low met
		121	43	2.7454588	(5.8560985)
		lib1	lib2	lib2/lib1	colon: low met > high met
		109	206	2.0384302	(6.0859794)
1387	1002	lib3	lib4	lib3/lib4	breast: high met > low met
		42	20	2.0488837	(2.5703094)
		libl	lib2	lib2/lib1	colon: low met > high met
		12	65	5.8423454	(6.2625969)
648	7	lib12	lib14	lib14/lib12	HMEC: VEGF > untreated
		25	67	2.6244913	(4.1766696)
		lib12	lib13	lib13/lib12	HMEC: bFGF > untreated
		25	52	2.0719962	(2.9474155)
693	4	lib8	lib9	lib8/lib9	lung: high met > low met
		506	209	3.3833566	(15.730912)
		lib3	lib4	lib4/lib3	breast: low met > high met
		987	2807	2.9149240	(30.381945)
		lib19	lib20	lib19/lib20	pt#3 colon: tumor > met
		26	8	2.4308253	(2.0970580)
		lib18	lib19	lib19/lib18	pt#3 colon: tumor > normal
		6	26	3.7918237	(2.9890107)
726	4	lib8	lib9	lib8/lib9	lung: high met > low met
		506	209	3.3833566	(15.730912)
		lib3	lib4	lib4/lib3	breast: low met > high met
		987	2807	2.9149240	(30.381945)
•		lib19	lib20	lib19/lib20	pt#3 colon: tumor > met
		26	8	2.4308253	(2.0970580)
		lib18	lib19	lib19/lib18	pt#3 colon: tumor > normal
		6	26	3.7918237	(2.9890107)
746	4	lib8	lib9	lib8/lib9	lung: high met > low met
		506	209	3.3833566	(15.730912)
		lib3	lib4	lib4/lib3	breast: low met > high met
		987	2807	2.9149240	(30.381945)

SEQ ID NO.	Cluster	Clones in 1st Lib	Clones in 2nd Lib	Ratio	Cell or Tissue Sample and Cancer State Compared (Z Score)
		lib19	lib20	lib19/lib20	pt#3 colon: tumor > met
		26	8	2.4308253	(2.0970580)
		lib18	lib19	lib19/lib18	pt#3 colon: tumor > normal
		6	26	3.7918237	(2.9890107)
1780	18	lib19	lib20	lib19/lib20	pt#3 colon: tumor > met
		80	13	4.6027462	(5.5144093)
		lib18	lib19	lib19/lib18	pt#3 colon: tumor > normal
		10	80	7.0002899	(6.6596394)
		lib15	lib17	lib17/lib15	pt#3 colon: met > normal
		4	23	5.3303793	(3.2702852)
1899	13	lib19	lib20	lib19/lib20	pt#3 colon: tumor > met
		148	23	4.8128716	(7.6861840)
		lib18	lib20	lib20/lib18	pt#3 colon: met > normal
		12	23	2.2423439	(2.1607719)
		lib18	lib19	lib19/lib18	pt#3 colon: tumor > normal
		12	148	10.792113	(9.8617485)
		lib15	lib17	lib17/lib15	pt#2 colon: met > normal
		14	80	5.2972714	(6.3458044)
		lib15	lib16	lib16/lib15	pt#2 colon: tumor > normal
		14	50	3.4370927	(4.2243697)
		lib12	lib14	lib14/lib12	HMEC: VEGF > untreated
		22	49	2.1811410	(2.9988774)
1915	1508	lib1	lib2	lib1/lib2	colon: high met > low met
		46	17	2.5087292	(3.2300592)
		lib3	lib4	lib3/lib4	breast: high met > low met
		21	5	4.0977674	(2.8791960)
1979	48	lib8	lib9	lib8/lib9	lung: high met > low met
		342	155	3.0834574	(12.213852)
		lib3	lib4	lib4/lib3	breast: low met > high met
		412	1020	2.5374934	(16.526285)
2007	1275	lib3	lib4	lib4/lib3	breast: low met > high met
		15	32	2.1865564	(2.4185764)
		lib8	lib9	lib9/lib8	lung: low met > high met
		10	42	3.0054239	3.1471113
	4 4 4				•

high met = high metastatic potential; low met = low metastatic potential; met = metastasized; tumor = non-metastasized tumor; pt = patient; #2 = UC#2; #3 = UC#3;

HMEC = human microvascular endothelial cell;

bFGF = bFGF treated; VEGF = VEGF treated 5

#### Example 12: Polynucleotides Exhibiting Colon-Specific Expression

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The cDNA libraries described herein were also analyzed to identify those polynucleotides that were specifically expressed in colon cells or tissue, *i.e.*, the polynucleotides were identified in libraries prepared from colon cell lines or tissue, but not in libraries of breast or lung origin. The polynucleotides that were expressed in a colon cell line and/or in colon tissue, but were present in the breast or lung cDNA libraries described herein, are shown in Table 19 (inserted before claims).

No clones corresponding to the colon-specific polynucleotides in the table above were present in any of Libraries 3, 4, 8, 9, 12, 13, 14, or 15. The polynucleotide provided above can be used as markers of cells of colon origin, and find particular use in reference arrays, as described above.

## Example 13: Identification of Contiguous Sequences Having a Polynucleotide of the Invention

The novel polynucleotides were used to screen publicly available and proprietary databases to determine if any of the polynucleotides of SEQ ID NOS:1-2502 would facilitate identification of a contiguous sequence, e.g., the polynucleotides would provide sequence that would result in 5' extension of another DNA sequence, resulting in production of a longer contiguous sequence composed of the provided polynucleotide and the other DNA sequence(s). Contiging was performed using the Gelmerge application (default settings) of GCG from the Univ. of Wisconsin.

Using these parameters, 146 contiged sequences were generated. These contiged sequences are provided as SEQ ID NOS:5107-5252 (see Table 1). The contiged sequences can be correlated with the sequences of SEQ ID NOS:1-2502 upon which the contiged sequences are based by, for example, identifying those sequences of SEQ ID NOS:1-2502 and the contiged sequences of SEQ ID NOS:5107-5252 that share the same clone name in Table 1.

The contiged sequences (SEQ ID NO:5107-5252) thus represent longer sequences that encompass a polynucleotide sequence of the invention. The contiged sequences were then translated in all three reading frames to determine the best alignment with individual sequences using the BLAST programs as described above for SEQ ID NOS:1-2502 and the validation sequences "SEQ ID NOS:2503-5106." Again the sequences were masked using the XBLAST program for masking low complexity as described above in Example 1

(Table 2). Several of the contiged sequences were found to encode polypeptides having characteristics of a polypeptide belonging to a known protein families (and thus represent new members of these protein families) and/or comprising a known functional domain (Table 20). Thus the invention encompasses fragments, fusions, and variants of such polynucleotides that retain biological activity associated with the protein family and/or functional domain identified herein.

 Table 20
 Profile hits using contiged sequences

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SEQ ID NO	Biological Activity (Profile)	Star	t Stop	Score	Direction	Sequence Name
5111	7tm_2	71	915	8090	for	RTA00000399F.o.01.1
5120	7tm_2	101	919	8475	rev	RTA00000341F.m.21.1
5174	7tm_2	3	963	9431	for	RTA00000192AF.h.19.1
5197	7tm_2	214	1073	8528	rev	RTA00000192AF.f.3.1
5208	ANK	546	629	4920	for	RTA00000190AF.f.5.1
5120	asp	126	1067	6620	rev	RTA00000341F.m.21.1.
5241	asp	112	1094	6553	for	RTA00000418F.i.06.1
5243	asp	347	1028	5981	for	RTA00000339F.b.02.1
5197	ATPases	113	781	5690	for	RTA00000192AF.f.3.1
5239	ATPases	1	348	15955	for	RTA00000401F.m.07.1
5241	ATPases	110	823	6782	for	RTA00000418F.i.06.1
5243	ATPases	338	874	5832	for	RTA00000339F.b.02.1
5125	protkinase	59	685	5791	for	RTA00000182AF.c.5.1
5217	protkinase	75	1035	5405	for	RTA00000181AF.p.12.3
5237	protkinase	25	546	5107	rev	RTA00000118A.n.5.1
5248	protkinase	14	422	5103	rev	RTA00000419F.k.05.1
	protkinase	89	755	5499	for	RTA00000404F.m.17.2
5120	Wnt_dev_sign	3	948	11036	for	RTA00000341F.m.21.1
All stop	start sequences are provided	d in th	e form	and dimen	tion.	

All stop/start sequences are provided in the forward direction.

Descriptions of the profiles for the indicated protein families and functional domains are provided in Example 3 above.

Those skilled in the art will recognize, or be able to ascertain, using not more than routine experimentation, many equivalents to the specific embodiments of the invention described herein. Such specific embodiments and equivalents are intended to be encompassed by the following claims.

All publications and patent applications cited in this specification are herein incorporated by reference as if each individual publication or patent application were specifically and individually indicated to be incorporated by reference. The citation of any publication is for its disclosure prior to the filing date and should not be construed as an admission that the present invention is not entitled to antedate such publication by virtue of prior invention.

Although the foregoing invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is readily apparent to those of ordinary skill in the art in light of the teachings of this invention that certain changes and modifications may be made thereto without departing from the spirit or scope of the appended claims.

#### **Deposit Information:**

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The following materials were deposited with the American Type Culture Collection: CMCC = (Chiron Master Culture Collection)

#### Cell Lines Deposited with ATCC

Cell Line	Deposit Date	ATCC Accession No.	CMCC Accession No.
KM12L4-A	March 19, 1998	CRL-12496	11606
Km12C	May 15, 1998	CRL-12533	11611
MDA-MB-231	May 15, 1998	CRL-12532	10583
MCF-7	October 9, 1998	CRL-12584	10377

### cDNA Libraries Deposited with ATCC

cDNA Library No.	cDNA Library ES21	cDNA Library ES22	cDNA Library ES23
Deposit Date	January 22, 1999	January 22, 1999	January 22, 1999
ATCC Accession No.	ATCC No.	ATCC No.	ATCC No.
Clone Names	M00001575D:G05	M00001364A:E11	M00001489B:A06
	M00001460A:A03	M00001694C:H10	M00001585A:D06
•	M00001655C:E04	M00003841D:E03	M00001637B:E07
	M00001676C:C11	M00004176D:B12	M00001529D:H02
	M00001679D:D05	M00001387B:E02	M00001500C:C08
	M00001546B:C05	M00004282B:A04	M00001483B:D03
	M00001453B:E10	M00001376B:F03	M00001623C:H07
		M00001445D:A06	M00003975B:F03
		M00001399C:H12	
		M00004208D:H08	

Deposit Date ATCC Accession No. Clone Names	M00004104B:F11 M00004237D:D08 M00004111D:B07 M00004138B:B11 M00001391C:C04 M00001448D:E12	cDNA Library ES25 January 22, 1999 ATCC No. M00001675D:B08 M00001589B:E12 M00001607D:A11 M00001636A:E07 M00001530A:B12 M00001495B:B08 M00001487C:F01 M00001644B:D06 M00003751C:A04	cDNA Library ES26 January 22, 1999 ATCC No. M00001479C:F10 M00003842D:F08 M00003901A:C09 M00003982A:B06 M00003824A:A06 M00003845D:C03 M00003856A:B07 M00004104B:A02 M00004110C:E03	
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In addition, libraries of selected clones were deposited. The details of these deposits are provided in Tables 21-24.

This deposit is provided merely as convenience to those of skill in the art, and is not an admission that a deposit is required under 35 U.S.C. §112. The sequence of the polynucleotides contained within the deposited material, as well as the amino acid sequence of the polypeptides encoded thereby, are incorporated herein by reference and are controlling in the event of any conflict with the written description of sequences herein. A license may be required to make, use, or sell the deposited material, and no such license is granted hereby.

### Retrieval of Individual Clones from Deposit of Pooled Clones

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Where the ATCC deposit is composed of a pool of cDNA clones, the deposit was prepared by first transfecting each of the clones into separate bacterial cells. The clones were then deposited as a pool of equal mixtures in the composite deposit. Particular clones can be obtained from the composite deposit using methods well known in the art. For example, a bacterial cell containing a particular clone can be identified by isolating single colonies, and identifying colonies containing the specific clone through standard colony hybridization techniques, using an oligonucleotide probe or probes designed to specifically hybridize to a sequence of the clone insert (e.g., a probe based upon unmasked sequence of the encoded polynucleotide having the indicated SEQ ID NO). The probe should be designed to have a T<sub>m</sub> of approximately 80°C (assuming 2°C for each A or T and 4°C for each G or C). Positive colonies can then be picked, grown in culture, and the recombinant clone isolated. Alternatively, probes designed in this manner can be used to PCR to isolate a nucleic acid molecule from the pooled clones according to methods well known in the art,

e.g., by purifying the cDNA from the deposited culture pool, and using the probes in PCR reactions to produce an amplified product having the corresponding desired polynucleotide sequence.

Table 1.					
SEQ ID	Filing	SEQ ID	Sequence Name	Clone Name	Cluster
NO:	Date of	NO: in	•		ID
	Priority	Priority			•
	Appln	Appln			
1	1/28/98	1	RTA00000197AF.i.16.1	M00001490A:D11	16402
2	1/28/98	2	RTA00000188AF.n.15.1	M00003804A:H04	0
3	1/28/98	3	RTA00000197AF.e.24.1	M00001456B:F10	39250
4	1/28/98	4	RTA00000198R.f.04.1	M00001607D:F07	5023
5	1/28/98	5	RTA00000195R.c.11.1	M00003811A:E03	66087
6	1/28/98	6	RTA00000195AF.c.16.1	M00003829C:A11	23508
7	1/28/98	7	RTA00000197AR.e.12.1	M00001454B:G07	22095
8	1/28/98	8	RTA00000200AF.h.11.2	M00004146A:C08	8399
9	1/28/98	9	RTA00000177AF.g.22.1	M00001347C:G08	7031
10	1/28/98	10	RTA00000198AF.n.16.1	M00001694C:H10	3721
11	1/28/98	11	RTA00000199AF.i.17.1	M00003880C:F10	9615
12	1/28/98	12	RTA00000183AF.i.15.2	M00001529B:C04	2642
13	1/28/98	13	RTA00000190AF.i.5.1	M00003919A:A10	0
14	1/28/98	14	RTA00000196R.c.11.2	M00001352A:E12	13658
15	1/28/98	15	RTA00000177AR.n.8.1	M00001356D:F06	4188
16	1/28/98	16	RTA00000196AF.e.16.1	M00001363C:H02	39252
17	1/28/98	17	RTA00000183AR.e.14.2	M00001506B:D09	17437
18	1/28/98	18	RTA00000196AF.c.17.1	M00001352C:F06	39602
19	1/28/98	19	RTA00000185AF.a.8.1	M00001570D:A03	4868
20	1/28/98	20	RTA00000181AF.1.14.2	M00001454D:D06	2364
21	1/28/98	21	RTA00000131A.g.19.2	M00001449A:G10	36535
22	1/28/98	22	RTA00000187AR.o.10.2	M00001718D:F07	8984
23	1/28/98	23	RTA00000198R.b.08.1	M00001567C:H12	22636
24	1/28/98	24	RTA00000200AF.f.11.1	M00004111D:D11	0
25	1/28/98	25	RTA00000196AF.c.1.1	M00001349C:C05	8171
26	1/28/98	26	RTA00000200R.g.09.1	M00004131B:H09	22785
27	1/28/98	27	RTA00000192AF.i.12.1	M00004169C:C12	5319
28	1/28/98	28	RTA00000178AR.o.01.5	M00001387B:H07	0
29	1/28/98	29	RTA00000200AF.b.19.1	M00004042D:H02	22847
30	1/28/98	30	RTA00000184AR.n.07.2	M00001561C:F06	0
31	1/28/98	31	RTA00000200F.m.15.1	M00004236C:D10	22601
32	1/28/98	32	RTA00000198R.m.19.1	M00001680D:D02	40041
33	1/28/98	33	RTA00000178AR.a.20.1	M00001362C:H11	945
34	1/28/98	34	RTA00000197AF.n.8.1	M00001536D:A12	4101
35	1/28/98	35	RTA00000191AF.n.17.1	M00004091B:D11	7848
36	1/28/98	36	RTA00000181AF.p.4.3	M00001460A:A03	40392
37	1/28/98	37	RTA00000181AF.n.15.2	M00001457A:B07	86128
38	1/28/98	38	RTA00000196R.k.07.1	M00001399C:D09	22443
39	1/28/98	39	RTA00000189AR.b.19.1	M00003832B:E01	5294
40	1/28/98	40	RTA00000200AR.e.02.1	M00004090A:F09	36059
41	1/28/98	41	RTA00000184F.k.12.1	M00001557D:D09	8761
42	1/28/98	42	RTA00000184F.j.21.1	M00001557A:D02	7065
43	1/28/98	43	RTA00000179AF.c.14.3	M00001392D:H04	0
44	1/28/98	44	RTA00000199F.f.08.2	M00003841D:E03	12445
45	1/28/98	45	RTA00000197AR.f.12.1	M00001458C:E01	3513
46	1/28/98	46	RTA00000182AF.f.13.1	M00001470C:B10	8010
47	1/28/98	47	RTA00000192AF.m.12.1	M00004191D:B11	0
48	1/28/98	48	RTA00000177AR.a.23.5	M00001339D:G02	6995
49	1/28/98	49	RTA00000198R.o.05.1	M00003750A:D01	26702
			124		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
50	1/28/98	50	RTA00000201R.a.02.1	M00004295B:D02	35362
51	1/28/98	51	RTA00000199R.k.07.1	M00003901C:A03	12973
52	1/28/98	52	RTA00000201R.b.02.1	M00004319D:G09	22660
53	1/28/98	53	RTA00000199AF.p.9.1	M00003988A:E10	10430
54	1/28/98	54	RTA00000200F.o.22.1	M00004282B:A04	983
55	1/28/98	55	RTA00000186AF.i.21.1	M00001636C:H09	6033
56	1/28/98	56	RTA00000177AF.e.9.1	M00001343D:C04	37442
57	1/28/98	57	RTA00000198AF.k.20.1	M00001660C:B12	22553
58	1/28/98	58	RTA00000199F.b.01.2	M00003778A:D08	19118
59	1/28/98	59	RTA00000195AF.b.13.1	M00001560D:A03	12605
59	2/24/98	78	RTA00000195AF.b.13.1	M00001560D:A03	12605
60	1/28/98	60	RTA00000196AR.i.12.3	M00001389D:G11	38800
61	1/28/98	61	RTA00000197AF.h.11.1	M00001476D:G03	22264
62	1/28/98	62	RTA00000190AF.a.18.2	M00003900D:B10	0
63	1/28/98	63	RTA00000184AF.k.19.1	M00001558B:D08	8022
64	1/28/98	64	RTA00000198AF.p.12.1	M00003763D:E10	8878
65	1/28/98	65	RTA00000198AF.m.16.1	M00001679D:D05	51
66	1/28/98	66	RTA00000199F.c.09.2	M00003800A:C09	16824
67	1/28/98	67	RTA00000200AF.g.07.1	M00004128B:G01	0
68	1/28/98	68	RTA00000184F.k.19.1	M00001558B:D08	8022
69	1/28/98	69	RTA00000186AF.h.8.1	M00001632C:C09	35547
70	1/28/98	70	RTA00000192AF.e.3.1	M00004138B:H02	13272
71	1/28/98	71	RTA00000193AR.o.16.3	M00004409B:A11	52972
72 <b>7</b> 2	1/28/98	72	RTA00000200F.a.6.1	M00004029B:F11	36952
73	1/28/98	73	RTA00000177AF.e.21.3	M00001344A:H07	4306
74	1/28/98	74	RTA00000196AF.h.20.1	M00001385B:F10	0
75 76	1/28/98	75	RTA00000180AR.h.19.2	M00001428A:H10	84182
76	1/28/98	76	RTA00000200AF.h.05.2	M00004142D:E10	10950
77 79	1/28/98	77 72	RTA00000197AF.n.2.1	M00001535A:D02	6229
78 70	1/28/98	78 70	RTA00000199R.f.09.1	M00003842B:D09	22907
79	1/28/98	79	RTA00000199AF.p.4.1	M00003985C:F01	10282
80	1/28/98	80	RTA00000196AF.p.13.2	M00001432A:E06	6125
81 82	1/28/98	81	RTA00000196AF.b.15.1	M00001347B:E01	5102
83	1/28/98	82	RTA00000183AF.I.18.1	M00001535D:C01	3484
84	1/28/98 1/28/98	83	RTA00000186AF.f.24.2	M00001629B:E06	0
85	1/28/98	84 85	RTA00000191AF.h.14.1	M00004056B:D09	13553
86			RTA00000200R.o.03.1	M00004257C:H06	22807
87	1/28/98 2/24/98	86	RTA00000189AF.1.22.1	M00003879C:G10	33333
87	1/28/98	245 87	RTA00000195AF.d.20.1	M00004117A:D11	37574
88	1/28/98	88	RTA00000195AF.d.20.1	M00004117A:D11	37574
89	1/28/98	89	RTA00000197AF.e.23.1	M00001456B:C09	37157
90	1/28/98	90	RTA00000177AF.n.8.3	M00001356D:F06	4188
91	1/28/98	90 91	RTA00000199F.f.15.2	M00003845A:H12	8772
92	1/28/98	92	RTA00000198AF.j.19.1	M00001653C:F12	38914
93	1/28/98	93	RTA00000198AF.j.18.1	M00001653B:G07	22759
94	1/28/98	93 94	RTA00000200F.o.11.1 RTA00000195AF.b.4.1	M00004270A:F11	0
95	1/28/98	94 95	RTA00000195AF.B.4.1 RTA00000180AF.g.3.1	M00001490C:D07 M00001425A:C11	0
96	1/28/98	93 96	<u> </u>		9024
97	1/28/98	90 97	RTA00000197AF.j.20.1 RTA00000197AF.o.2.1	M00001496C:C11 M00001541C:B07	4915
	1120170	71	125	19100001341C1B07	5739

SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
98	1/28/98	98	RTA00000200AF.f.14.1	M00004115D:C08	22051
99	1/28/98	99	RTA00000184AF.d.8.1	M00004113D:C08	4393
100	1/28/98	100	RTA00000104A1.d.6.1	M00001348A.A08	4393 22051
101	1/28/98	101	RTA00000191AF.d.08.2	M00004113D.C08 M00003997B:G07	
102	1/28/98	102	RTA00000191A1.d.08.2	M00003997B.G07	970
103	1/28/98	103	RTA00000199F.e.10.1	M00003884D.G07	37844
104	1/28/98	104	RTA000001991.c.10.1	M00003822A:F02	22906
105	1/28/98	105	RTA00000179AF.g.12.3	M00001381A:D02	6636
106	1/28/98	106	RTA00000177AF.n.21.1	M00001540B:C09	36390 0
107	1/28/98	107	RTA00000196R.i.13.1	M00001340B.C09	9857
108	1/28/98	108	RTA00000183AR.h.23,2	M00001590A:A09	9837 1 <b>89</b> 57
109	1/28/98	109	RTA00000197AF.d.12.1	M00001328A:F09	39546
110	1/28/98	110	RTA00000197R.h.01.1	M00001431D.C10	13075
111	1/28/98	111	RTA00000197A.ii.01.1	M00007470A:H01	22038
112	1/28/98	112	RTA00000177AF.m.8.1	M00003751D:B02	8010
113	1/28/98	113	RTA00000196AF.d.09.1	M00001354B:B10	16934
114	1/28/98	114	RTA00000200R.f.02.1	M00001334B:B10	7138
115	1/28/98	115	RTA00000179AR.o.20.3	M00004108A:A09	2409
116	1/28/98	116	RTA00000181AR.k.24.3	M00001454B:C12	7005
117	1/28/98	117	RTA00000199AF.j.18.1	M00001454B:C12	5140
118	1/28/98	118	RTA00000199F.b.24.2	M00003794A:B03	0
119	1/28/98	119	RTA00000181AR.k.24.2	M00003754R:B03	7005
120	1/28/98	120	RTA00000178AR.m.19.5	M00001434D:C12	0
121	1/28/98	121	RTA00000199AF.o.16.1	M00003979A:F03	16721
122	1/28/98	122	RTA00000197AF.1.15.1	M00001517B:G08	4947
123	1/28/98	123	RTA00000191AF.k.6.1	M00004078B:A11	5451
124	1/28/98	124	RTA00000199AR.m.06.1	M00003933C:D06	19122
125	1/28/98	125	RTA00000197AF.k.15.1	M00001504D:D11	22750
126	1/28/98	126	RTA00000201F.d.16.1	M00004388B:A08	0
127	1/28/98	127	RTA00000178AF.k.18.1	M00001382A:F04	9755
128	1/28/98	128	RTA00000196F.i.12.1	M00001389D:G11	38800
129	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957
130	1/28/98	130	RTA00000196AF.h.23.1	M00001386A:C02	13357
131	1/28/98	131	RTA00000185AF.d.11.2	M00001579D:C03	6539
132	1/28/98	132	RTA00000178AF.f.20.3	M00001372C:F07	39881
133	1/28/98	133	RTA00000181AR.n.20.3	M00001457B:E03	0
134	1/28/98	134	RTA00000197F.e.11.1	M00001454B:G03	2306
135	1/28/98	135	RTA00000196AF.c.22.1	M00001352D:C05	22548
136	1/28/98	136	RTA00000197AF.c.10.1	M00001448B:F06	10400
137	1/28/98	137	RTA00000181AF.m.4.3	M00001455A:E09	13238
138	1/28/98	138	RTA00000182AF.a.3.3	M00001462B:A10	0
139	1/28/98	139	RTA00000191AF.d.01.2	M00003996A:A06	7031
140	1/28/98	140	RTA00000199F.a.2.1	M00003772A:D07	12674
141	1/28/98	141	RTA00000196AF.c.6.1	M00001350A:D06	23148
142	1/28/98	142	RTA00000198AF.k.19.1	M00001660B:C04	75879
143 144	1/28/98	143	RTA00000199R.h.09.1	M00003867C:H09	76020
144	1/28/98	144	RTA00000198AF.o.18.1	M00003755A:A09	13018
	1/28/98	145	RTA00000178AF.h.24.1	M00001376B:C06	6745
146 147	1/28/98	146	RTA00000185AF.a.19.2	M00001571C:H06	5749
17/	1/28/98	147	RTA00000185AF.c.24.2	M00001578B:E04	23001
			107		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appin			
148	1/28/98	148	RTA00000199F.h.17.2	M00003871A:A05	36254
149	1/28/98	149	RTA00000181AR.h.06.3	M00001450D:D04	87226
150	1/28/98	150	RTA00000184F.k.09.1	M00001557C:H07	7065
151	1/28/98	151	RTA00000200R.1.17.1	M00004217C:D03	12771
152	1/28/98	152	RTA00000196AF.c.20.1	M00001352C:H02	8934
153	1/28/98	153	RTA00000200F.n.17.2	M00004252C:E03	19064
154	1/28/98	154	RTA00000196F.e.7.1	M00001360D:E11	1039
155	1/28/98	155	RTA00000197F.e.8.1	M00001454A:C11	3135
156	1/28/98	156	RTA00000199R.o.12.1	M00003977A:E04	16128
157	1/28/98	157	RTA00000188AF.n.01.1	M00003801A:B10	36412
158	1/28/98	158	RTA00000198AF.k.03.1	M00001655A:F06	22765
159	1/28/98	159	RTA00000182AF.I.12.1	M00001487A:A05	1027
160	1/28/98	160	RTA00000192AF.b.20.1	M00004118D:E08	0
161	1/28/98	161	RTA00000183AF.e.23.2	M00001506D:A09	0
162	1/28/98	162	RTA00000201F.e.15.1	M00004444B:D11	9960
163	1/28/98	163	RTA00000192AR.e.13.3	M00004142A:B12	9457
164	1/28/98	164	RTA00000193AR.i.14.4	M00004307C:A06	9457
165	1/28/98	165	RTA00000192AF.g.23.1	M00004157C:A09	6455
166	1/28/98	166	RTA00000198AF.f.21.1	M00001614D:D09	22676
167	1/28/98	167	RTA00000179AF.d.22.3	M00001394C:C11	7955
168	1/28/98	168	RTA00000177AR.k.23.1	M00001352D:D02	35550
169	1/28/98	169	RTA00000196AF.g.24.1	M00001380C:F02	8685
170	1/28/98	170	RTA00000197AF.d.23.1	M00001453A:E11	16130
171	1/28/98	171	RTA00000198R.c.07.1	M00001575D:G05	19181
172	1/28/98	172	RTA00000186AF.p.09.2	M00001655C:E04	6879
173	1/28/98	173	RTA00000200AR.b.07.1	M00004039C:C01	17125
174	1/28/98	174	RTA00000181AF.e.22.3	M00001448D:F09	3442
175	1/28/98	175	RTA00000200F.i.5.1	M00004156B:A12	22892
176	1/28/98	176	RTA00000183AF.h.19.1	M00001528A:A01	5175
177	1/28/98	177	RTA00000197AF.c.3.1	M00001447C:C01	3145
178	1/28/98	178	RTA00000200F.o.03.1	M00004257C:H06	22807
179	1/28/98	179	RTA00000179AF.f.20.3	M00001397B:B09	16154
180	1/28/98	180	RTA00000199AF.j.12.1	M00003887A:A06	22461
181	1/28/98	181	RTA00000198AF.d.2.1	M00001585A:F07	0
182	1/28/98	182	RTA00000196AF.h.16.1	M00001384C:E03	39895
183	1/28/98	183	RTA00000198AF.c.17.1	M00001579C:E08	6923
184	1/28/98	184	RTA00000197AF.f.7.1	M00001457C:C11	19261
185	2/24/98	234	RTA00000195AF.d.4.1	M00003881D:D06	22766
185	1/28/98	185	RTA00000195AF.d.4.1	M00003881D:D06	22766
186	1/28/98	186	RTA00000198R.p.09.1	M00003761D:E02	10473
187	1/28/98	187	RTA00000180AR.j.04.4	M00001429C:G12	22300
188	1/28/98	188	RTA00000188AF.o.05.1	M00003806D:G05	4668
189	1/28/98	189	RTA00000197AF.h.10.1	M00001476B:F10	15554
190	1/28/98	190	RTA00000134A.c.7.1	M00001528A:A01	5175
191	1/28/98	191	RTA00000187AF.p.23.1	M00003748B:F02	39804
192	1/28/98	192	RTA00000185AF.m.7.1	M00001605C:D12	39804
193	1/28/98	193	RTA00000199AF.n.3.1	M00003946D:C11	0
194	1/28/98	194	RTA00000200R.k.01.1	M00004188C:A09	40049
195	1/28/98	195	RTA00000198AF.c.10.1	M00001577B:H02	77149
196	1/28/98	196	RTA00000198F.e.10.1	M00001599B:E09	9727
			127		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
197	1/28/98	197	RTA00000198F.I.12.1	M00001669C:B01	8592
198	1/28/98	198	RTA00000197AR.e.07.1	M00001453D:G12	86969
199	1/28/98	199	RTA00000199R.c.09.1	M00003800A:C09	16824
200	1/28/98	200	RTA00000182AF.f.2.1	M00001469D:D02	4794
201	1/28/98	201	RTA00000198AF.p.18.1	M00003769B:D03	23081
202	1/28/98	202	RTA00000200R.I.17.2	M00004217C:D03	12771
203	1/28/98	203	RTA00000201F.d.09.1	M00004380B:A05	1827
204	1/28/98	204	RTA00000180AR.o.5.2	M00001437D:C04	7848
205	1/28/98	205	RTA00000189AF.g.11.1	M00003858D:F12	0
206	1/28/98	206	RTA00000181AF.o.04.2	M00001457C:C12	22205
207	1/28/98	207	RTA00000199AF.I.19.1	M00003924B:D04	22460
208	1/28/98	208	RTA00000198AF.h.22.1	M00001635C:A03	22366
209	1/28/98	209	RTA00000182AF.c.5.1	M00001464D:F06	6397
210	1/28/98	210	RTA00000189AR.b.12.1	M00003829B:G03	17233
211	1/28/98	211	RTA00000199AF.m.15.1	M00003939A:A02	10101
212	1/28/98	212	RTA00000197AF.j.9.1	M00001494B:C01	13236
213	1/28/98	213	RTA00000200F.o.04.1	M00004260D:C12	12514
214	1/28/98	214	RTA00000200AF.f.22.1	M00004121C:F06	16521
215	1/28/98	215	RTA00000192AR.e.14.3	M00004142A:D08	3300
216	1/28/98	216	RTA00000188AF.g.9.1	M00003774B:B08	4959
217	1/28/98	217	RTA00000198AF.h.3.1	M00001625D:C07	22562
218	1/28/98	218	RTA00000188AF.o.18.1	M00003811D:A12	13678
219	1/28/98	219	RTA00000198AF.m.19.1	M00001680D:D02	40041
220	1/28/98	220	RTA00000200AF.h.01.2	M00004141D:A09	0
221	1/28/98	221	RTA00000189AF.i.17.1	M00003868C:H10	16814
222	1/28/98	222	RTA00000185AF.i.4.1	M00001594A:B12	13942
223	1/28/98	223	RTA00000197F.i.9.1	M00001488D:C10	0
224	1/28/98	224	RTA00000188AF.m.11.1	M00003799A:D09	0
225	1/28/98	225	RTA00000189AF.b.5.1	M00003828A:E04	3784
226	1/28/98	226	RTA00000191AR.o.09.4	M00004096A:G02	0
227	1/28/98	227	RTA00000201R.d.02.2	M00004375A:H01	2599
228	1/28/98	228	RTA00000187AR.h.15.2	M00001679A:A06	6660
229	1/28/98	229	RTA00000198AF.g.3.1	M00001615C:F03	0
230	1/28/98	230	RTA00000185AR.b.18.1	M00001575B:C09	12171
231	1/28/98	231	RTA00000192AF.1.13.2	M00004185C:C03	11443
232	1/28/98	232	RTA00000186AF.j.03.2	M00001638A:E07	0
233	1/28/98	233	RTA00000197AF.1.8.1	M00001511B:C06	39954
234	1/28/98	234	RTA00000191AF.f.8.1	M00004035A:A04	6541
235	1/28/98	235	RTA00000201AF.a.02.1	M00004295B:D02	35362
236	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
237	1/28/98	237	RTA00000197AF.k.10.1	M00001500D:B11	0
238	1/28/98	238	RTA00000187AR.k.12.1	M00001679D:F02	78415
239	1/28/98	239	RTA00000201R.d.02.1	M00004375A:H01	2599
240	1/28/98	240	RTA00000178AF.e.1.1	M00001369A:H12	2664
241	1/28/98	241	RTA00000200AF.I.17.1	M00004217C:D03	12771
242	1/28/98	242	RTA00000198AF.m.17.1	M00001679D:F06	77992
243	1/28/98	243	RTA00000181AF.m.15.3	M00001455D:A11	12081
244	1/28/98	244	RTA00000199F.f.12.2	M00003844C:A08	8131
245	1/28/98	245	RTA00000200AF.k.7.1	M00004193C:G11	0
246	1/28/98	246	RTA00000199AF.I.4.1	M00003911D:B04	4410

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
247	1/28/98	247	RTA00000198AF.k.08.1	M00001656C:G08	17436
248	1/28/98	248	RTA00000198R.c.14.1	M00001578D:C04	39814
249	1/28/98	249	RTA00000200R.o.03.2	M00004257C:H06	22807
250	1/28/98	250	RTA00000192AF.j.21.1	M00004176D:B12	2289
251	1/28/98	251	RTA00000192AF.n.13.1	M00004197D:H01	8210
252	1/28/98	252	RTA00000181AF.e.18.3	M00001448D:C09	8
253	1/28/98	253	RTA00000181AF.e.17.3	M00001448D:C09	8
254	1/28/98	254	RTA00000178AF.n.2.1	M00001385C:H11	17083
255	1/28/98	255	RTA00000199AF.j.17.1	M00003889A:D10	5121
256	1/28/98	256	RTA00000184AR.e.15.1	M00001549C:E06	16347
257	1/28/98	257	RTA00000198AF.e.20.1	M00001604C:E09	9810
258	1/28/98	258	RTA00000199F.h.12.2	M00003868B:D12	16621
259	1/28/98	259	RTA00000197AF.j.4.1	M00001492D:A11	17209
260	1/28/98	260	RTA00000198R.m.17.1	M00001679D:F06	77992
261	1/28/98	261	RTA00000192AF.a.24.1	M00004114C:F11	13183
262	1/28/98	262	RTA00000186AF.c.17.1	M00001619D:G05	8551
263	1/28/98	263	RTA00000190AF.n.6.1	M00003965A:B11	0
264	1/28/98	264	RTA00000179AF.k.3.3	M00001401A:H07	0
265	1/28/98	265	RTA00000177AF.e.14.1	M00001343D:H07	23255
266	1/28/98	266	RTA00000199F.f.21.2	M00003847C:E09	13344
267	1/28/98	267	RTA00000186AF.g.11.2	M00001630B:H09	5214
268	1/28/98	268	RTA00000186AF.h.01.2	M00001632A:F12	0
269	1/28/98	269	RTA00000183AF.k.13.1	M00001534B:C12	0
270	1/28/98	270	RTA00000178R.1.08.1	M00001383A:C03	39648
271	1/28/98	271	RTA00000201F.d.02.1	M00004375A:H01	2599
272	1/28/98	272	RTA00000199F.g.08.2	M00003853D:G08	0
273	1/28/98	273	RTA00000201F.c.08.1	M00004353C:H07	0
274	1/28/98	274	RTA00000191AF.o.17.1	M00004102A:H02	5957
275	1/28/98	275	RTA00000191AF.o.17.2	M00004102A:H02	5957
276	1/28/98	276	RTA00000198AF.j.15.1	M00001653B:E09	4369
277	1/28/98	277	RTA00000198AR.i.08.1	M00001639A:F10	9807
278	1/28/98	278	RTA00000198AF.p.16.1	M00003768A:E02	71877
279	1/28/98	279	RTA00000196AF.h.24.1	M00001386A:D11	7308
280	1/28/98	280	RTA00000193AF.b.18.1	M00004233C:H09	7542
281	1/28/98	281	RTA00000188AF.n.10.1	M00003802D:B11	10283
282	1/28/98	282	RTA00000193AF.c.15.1	M00004248B:E08	3726
283	1/28/98	283	RTA00000177AF.i.8.4	M00001350A:H01	7187
284	1/28/98	284	RTA00000199F.d.10.2	M00003808C:B05	22049
285	1/28/98	285	RTA00000181AR.j.14.3	M00001453B:E10	5399
286	1/28/98	286	RTA00000181AR.k.2.3	M00001453C:A11	0
287	1/28/98	287	RTA00000200AF.b.07.1	M00004039C:C01	17125
288	1/28/98	288	RTA00000181AR.i.06.3	M00001452A:C07	19119
289	1/28/98	289	RTA00000196F.k.07.1	M00001399C:D09	22443
290	1/28/98	290	RTA00000201F.f.10.1	M00004498D:D05	5231
291	1/28/98	291	RTA00000200AF.e.16.1	M00004101C:G08	12068
292	1/28/98	292	RTA00000199AF.m.18.1	M00003939C:F04	0
293	1/28/98	293	RTA00000197AF.e.13.1	M00001454C:F02	662
294	1/28/98	294	RTA00000198AF.k.23.1	M00001661B:C08	8995
295	1/28/98	295	RTA00000181AR.i.19.2	M00001452C:B06	16970
296	1/28/98	296	RTA00000196AF.f.20.1	M00001371D:G01	22774

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
207	Appln	Appin			
297	1/28/98	297	RTA00000178AF.f.9.3	M00001371C:E09	7172
298 299	1/28/98	298	RTA00000197AR.e.11.1	M00001454B:G03	2306
300	1/28/98	299	RTA00000196AF.f.5.1	M00001366D:G02	11937
300	2/24/98	464	RTA00000195AF.c.12.1	M00003818B:G12	37582
300	1/28/98 1/28/98	300	RTA00000195AF.c.12.1	M00003818B:G12	37582
302		301	RTA00000181AR.i.19.3	M00001452C:B06	16970
303	1/28/98 1/28/98	302	RTA00000186AF.d.1.2	M00001621C:C08	40044
303	1/28/98	303 304	RTA00000186AR.e.03.3	M00001623D:C10	22110
305	1/28/98	304 305	RTA00000182AR.c.5.1	M00001464D:F06	6397
306	1/28/98	305 306	RTA00000200AF.b.15.1	M00004040D:F01	10627
307	1/28/98	300	RTA00000199AF.p.12.1	M00003989A:H11	12578
308	1/28/98	307	RTA00000200F.n.05.2	M00004246C:A09	18989
309	1/28/98	309	RTA00000178AF.j.20.1	M00001380C:E05	15066
310	1/28/98	310	RTA00000198AF.h.12.1	M00001632C:A02	9503
311	1/28/98	311	RTA00000188AF.m.08.1	M00003798D:H08	22155
312	1/28/98	312	RTA00000191AR.j.4.2 RTA00000193AF.h.2.1	M00004071D:A10	5198
313	1/28/98	313	RTA00000193AF.ii.2.1 RTA00000183AF.o.11.1	M00004290A:B03	3273
314	1/28/98	314	RTA00000183AF.0.11.1 RTA00000182AF.o.5.1	M00001540D:D02	0
315	1/28/98	315	RTA00000182A1.0.3.1 RTA00000199R.d.23.1	M00001493B:D09	5007
316	1/28/98	316	RTA00000199K.d.23.1 RTA00000198AF.h.24.1	M00003815D:H09 M00001636C:C01	37477
317	1/28/98	317	RTA00000198AF.p.09.1	M00001030C:C01 M00003761D:E02	8390
318	1/28/98	318	RTA00000200AF.g.17.1	M00003761D:E02	10473 0
319	1/28/98	319	RTA00000200F.n.05.1	M00004138A.H09	18989
320	1/28/98	320	RTA00000196AF.m.13.1	M00004246C:A09	16290
321	1/28/98	321	RTA00000181AR.b.21.1	M00001413B:209	3266
322	1/28/98	322	RTA00000184AR.b.21.1	M00001444C:B03	39788
323	1/28/98	323	RTA00000182AF.m.21.1	M00001490C:C12	18699
324	1/28/98	324	RTA00000184F.j.06.1	M00001556B:G02	11294
325	1/28/98	325	RTA00000182AF.d.18.4	M00001467D:H05	37435
326	1/28/98	326	RTA00000197AR.e.19.1	M00001455D:A09	8047
327	1/28/98	327	RTA00000182AF.i.1.3	M00001479B:A01	7033
328	1/28/98	328	RTA00000200AF.g.09.1	M00004131B:H09	22785
329	1/28/98	329	RTA00000186AF.b.9.1	M00001616C:F07	0
330	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
331	1/28/98	331	RTA00000197AR.c.20.1	M00001449D:A06	16282
332	1/28/98	332	RTA00000193AR.n.04.3	M00004375C:D01	9850
333	1/28/98	333	RTA00000196F.k.15.1	M00001400A:F06	8320
334	1/28/98	334	RTA00000181AR.b.21.3	M00001444C:D05	3266
335	1/28/98	335	RTA00000182AF.e.3.2	M00001468B:H06	0
336	1/28/98	336	RTA00000186AF.f.24.1	M00001629B:E06	0
337	1/28/98	337	RTA00000177AR.m.17.3	M00001355B:G10	14391
338	1/28/98	338	RTA00000184AF.i.1.1	M00001554B:C07	0
339	1/28/98	339	RTA00000193AF.d.1.1	M00004250D:D10	0
340	1/28/98	340	RTA00000185AF.n.8.1	M00001608B:A03	0
341	1/28/98	341	RTA00000181AF.1.06.2	M00001454C:C08	0
342	1/28/98	342	RTA00000196AF.d.10.1	M00001354C:B06	22256
343	1/28/98	343	RTA00000201F.a.18.1	M00004314B:G07	16837
344	1/28/98	344	RTA00000198AF.o.02.1	M00003748A:B07	68756
345	1/28/98	345	RTA00000187AF.h.21.1	M00001679A:F01	39171

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
346	Appln 1/28/98	Appln 346	RTA00000197AR.k.22.1	M00001505C:H01	11394
340 347	1/28/98	340 347	RTA00000197AR.R.22.1 RTA00000199F.b.03.2	M00001303C:H01	38340
347	1/28/98	347	RTA00000199F.b.03.2 RTA00000200F.n.07.2	M00003779B.E12 M00004247C:C12	36340 8663
348 349	1/28/98	348 349		M00004247C:C12	6308
350	1/28/98	350	RTA00000191AF.j.15.1 RTA00000193AR.c.7.2	M00004073B:B01	9850
350 351	1/28/98	350 351	RTA00000193AR.c.7.2 RTA00000179AF.c.22.1	M00004241D.F11	22515
352	1/28/98	352	RTA00000179AF.c.22.1 RTA00000197AF.p.3.1	M00001550A:A03	7239
352	1/28/98	353	RTA00000197AF.p.3.1 RTA00000198F.a.9.1	M00001550A:A03	0
354	1/28/98	353 354	RTA00000198R.k.03.1	M00001337D.C08	22765
355	1/28/98	355	RTA00000198R.k.03.1 RTA00000184AR.b.24.1	M00001635A.F00	5777
355 356	1/28/98	356	RTA00000180AF.I.12.2	M00001340B.C03	0
350 357	1/28/98	357	RTA00000180AF.1.12.2 RTA00000184AF.o.15.1	M00001433B.H11	0
358	1/28/98	358	RTA00000184AF.0.13.1 RTA00000198AF.g.7.1	M00001304D.C09	13386
359	1/28/98	359	RTA00000196AF.b.17.1	M00001010C:C09	12193
360	1/28/98	360	RTA00000198F.i.5.1	M00001348A:D04	39989
361	1/28/98	361	RTA000001781.1.3.1 RTA00000177AR.g.16.4	M00001038A.D10	13576
362	1/28/98	362	RTA00000177AR.g.10.4 RTA00000197AR.c.24.1	M00001347A:B10	82498
363	1/28/98	363	RTA00000197AR.c.24.1 RTA00000196AF.e.14.1	M00001362C:A10	12850
364	1/28/98	364	RTA00000130AF.g.13.1	M00001502C:A10	2991
365	1/28/98	365	RTA0000019771.g.13.1	M00001410B:G05	22678
366	1/28/98	366	RTA000001901.1.20.2 RTA00000192AF.o.19.1	M00001410B:003	3549
367	1/28/98	367	RTA00000192A1.0.17.1	M00004200D:1100	4233
368	1/28/98	368	RTA00000198AF.k.18.1	M00001592C:D10	17432
369	1/28/98	369	RTA00000196F.m.3.1	M00001413A:F02	10453
370	1/28/98	370	RTA000001791.in.3.1	M0000141371:102 M00001392D:H06	2995
371	1/28/98	371	RTA0000017771.c.15.5	M00001332D:1100 M00001453D:G12	86969
372	1/28/98	372	RTA000001371.5.711	M00001133B:G12	22187
373	1/28/98	373	RTA00000196F.e.12.1	M00001361C:H11	10147
374	1/28/98	374	RTA00000178AF.I.11.1	M00001383A:G04	23286
375	1/28/98	375	RTA00000177AF.m.18.1	M00001355B:G11	0
376	1/28/98	376	RTA00000177AF.m.18.3	M00001355B:G11	0
377	1/28/98	377	RTA00000178AF.m.19.1	M00001384D:H07	0
378	1/28/98	378	RTA00000181AF.k.24.3	M00001454B:C12	7005
379	1/28/98	379	RTA00000180AF.1.06.2	M00001433A:G07	5625
380	1/28/98	380	RTA00000182AF.k.24.1	M00001485D:B10	5625
381	1/28/98	381	RTA00000199AF.m.14.1	M00003938A:B04	10580
382	1/28/98	382	RTA00000200AF.j.6.1	M00004176B:E08	22902
383	1/28/98	383	RTA00000199F.f.20.2	M00003847B:G03	0
384	1/28/98	384	RTA00000196AF.h.17.1	M00001384C:F12	39215
385	1/28/98	385	RTA00000201F.c.24.1	M00004374D:E10	35731
386	1/28/98	386	RTA00000197AR.j.04.1	M00001492D:A11	17209
387	2/24/98	632	RTA00000191AF.j.14.1	M00004073A:H12	1002
387	1/28/98	387	RTA00000191AF.j.14.1	M00004073A:H12	1002
388	1/28/98	388	RTA00000185AF.n.17.1	M00001609B:A11	5336
389	1/28/98	389	RTA00000181AR.k.2.2	M00001453C:A11	0
390	1/28/98	390	RTA00000197AR.f.07.1	M00001457C:C11	19261
391	1/28/98	391	RTA00000179AF.e.20.3	M00001396A:C03	4009
392	1/28/98	392	RTA00000185AF.b.11.2	M00001573C:D03	9024
393	1/28/98	393	RTA00000188AF.b.14.1	M00003754D:D02	0
394	1/28/98	394	RTA00000198AF.p.22.1	M00003771A:G10	0
			4.4		

SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
395	1/28/98	Appln 395	DTA/0000106D - 21.2	M00001252G 1110	•
396	1/28/98	393 396	RTA00000196R.c.21.2 RTA00000179AR.b.02.3	M00001352C:H10	0
397	1/28/98	390 397		M00001391B:G12	0
398	1/28/98	397 398	RTA00000198AF.b.22.1	M00001571B:E03	38956
399	1/28/98	399	RTA00000177AR.I.13.3	M00001353A:G12	8078
400	1/28/98	399 400	RTA00000186AF.m.15.2	M00001649C:B10	40122
401	1/28/98	400 401	RTA00000186AR.e.07.3	M00001623D:G03	4175
402	1/28/98		RTA00000195F.e.04.1	M00004465B:D04	6731
402	1/28/98	402 403	RTA00000177AF.b.21.4	M00001341A:F12	4443
403	1/28/98	403 404	RTA00000184AF.f.13.1	M00001550D:H02	3784
404	1/28/98		RTA00000195AF.b.6.1	M00001496C:G10	39490
405	1/28/98	405	RTA00000197AF.b.24.1	M00001446C:D09	23171
400 407	1/28/98	406	RTA00000199F.f.09.2	M00003842B:D09	22907
407		407	RTA00000178AF.e.20.1	M00001370D:E12	3135
409	1/28/98	408	RTA00000183AR.I.15.1	M00001535C:E01	39383
410	1/28/98	409	RTA00000180AF.d.1.3	M00001418D:B06	8526
411	1/28/98	410	RTA00000201F.a.20.1	M00004316A:G09	22639
411	1/28/98	411	RTA00000179AF.j.13.3	M00001400B:H06	0
412	2/24/98	678	RTA00000195AF.c.24.1	M00003860D:H07	0
412	1/28/98	412	RTA00000195AF.c.24.1	M00003860D:H07	0
413	1/28/98	413	RTA00000200F.a.12.1	M00004031D:B05	16751
414	1/28/98	414	RTA00000185AR.b.15.1	M00001573D:F04	39813
415	1/28/98	415	RTA00000200AF.f.09.1	M00004111C:E11	12863
417	1/28/98	416	RTA00000199F.a.5.1	M00003773B:G01	22134
417	1/28/98	417	RTA00000200R.d.16.1	M00004085A:B02	39875
419	1/28/98	418	RTA00000187AR.k.01.1	M00001679D:B05	78356
420	1/28/98 1/28/98	419	RTA00000182AF.j.20.1	M00001483B:D03	4769
420		420	RTA00000181AF.c.11.1	M00001445D:A06	4769
421	1/28/98 1/28/98	421	RTA00000200AF.i.21.1	M00004167D:A07	5316
422		422	RTA00000189AF.b.12.1	M00003829B:G03	17233
423	1/28/98	423	RTA00000188AR.b.17.1	M00003755A:B03	10662
424	1/28/98	424	RTA00000187AR.j.24.1	M00001679D:B05	78356
426	1/28/98 1/28/98	425	RTA00000200AF.c.16.1	M00004064D:A11	23433
427	1/28/98	426	RTA00000199AF.o.19.1	M00003980D:E09	36927
427	1/28/98	427	RTA00000187AR.d.9.2	M00001664D:G07	5483
429	1/28/98	428 429	RTA00000185AF.b.15.2	M00001573D:F04	39813
430	1/28/98	429	RTA00000196F.i.19.1	M00001390C:C11	39498
431	1/28/98	430	RTA00000198R.k.23.1	M00001661B:C08	8995
432	1/28/98	431	RTA00000199AF.k.15.1	M00003905C:G10	8275
433	1/28/98	432	RTA00000198AF.o.05.1	M00003750A:D01	26702
434	1/28/98	433	RTA00000198R.j.18.1	M00001653B:G07	22759
435	1/28/98		RTA00000187AR.d.2.2	M00001664C:H10	4892
436	1/28/98	435	RTA00000182AR.c.22.1	M00001467A:D08	16283
437	1/28/98	436 437	RTA00000200AF.k.11.1	M00004197C:F03	9796
438	1/28/98		RTA00000198R.a.23.1	M00001563B:D11	10700
439	1/28/98	438 439	RTA00000180AR.g.03.4	M00001425A:C11	9024
440	1/28/98	439 440	RTA00000185AF.d.14.2	M00001579D:G07	8071
441	1/28/98	440 441	RTA00000177AR.f.13.4	M00001345A:G11	10480
442	1/28/98		RTA00000185AF.e.6.1	M00001583B:E10	0
442	1/28/98	442 443	RTA00000191AF.I.9.1	M00004081C:H06	0
T - J	1140/70	443	RTA00000197AR.i.17.1	M00001490A:E11	3516

SEQ ID	Filing	SEQ ID	Sequence Name	Clone Name	Cluster
NO:	Date of	NO: in			ID
	Priority	Priority			
	Appln	Appln			-
444	1/28/98	444	RTA00000189AF.1.16.1	M00003879A:G05	0 .
445	1/28/98	445	RTA00000196AF.n.13.1	M00001422C:F12	8396
446	1/28/98	446	RTA00000182AF.a.23.3	M00001463A:F06	9755
447	1/28/98	447	RTA00000198AF.d.8.1	M00001587A:H03	0
448	1/28/98	448	RTA00000200AF.j.9.1	M00004177C:A01	8608
449	1/28/98	449	RTA00000181AF.m.22.3	M00001455D:F09	9283
450	1/28/98	450	RTA00000181AF.m.21.3	M00001455D:F09	9283
451	1/28/98	451	RTA00000200AF.b.20.1	M00004043A:D02	40403
452	1/28/98	452	RTA00000199F.d.19.2	M00003813D:H12	6707
453	1/28/98	453	RTA00000199AF.i.20.1	M00003881A:D09	9544
454	1/28/98	454	RTA00000200R.d.04.1	M00004078A:A06	5506
455	1/28/98	455	RTA00000198AF.d.12.1	M00001589A:C01	21142
456	1/28/98	456	RTA00000200AF.b.12.1	M00004040B:F10	22053
457	1/28/98	457	RTA00000191AR.I.7.2	M00004081C:D12	14391
458	1/28/98	458	RTA00000199R.d.16.1	M00003812C:A05	24191
459	1/28/98	459	RTA00000179AF.c.22.3	M00001393B:B09	22515
460	1/28/98	460	RTA00000179AF.c.15.1	M00001392D:H06	2995
461	1/28/98	461	RTA00000190AF.e.13.1	M00003908A:H09	38961
462	1/28/98	462	RTA00000196AF.n.17.1	M00001423D:A09	12477
463	1/28/98	463	RTA00000177AR.k.23.4	M00001352D:D02	35550
464	1/28/98	464	RTA00000199AF.I.14.1	M00003917A:D02	22865
465	1/28/98	465	RTA00000187AF.k.20.1	M00001680B:C01	3648
466	1/28/98	466	RTA00000177AF.p.20.1	M00001361A:A05	4141
467	1/28/98	467	RTA00000195AF.b.19.1	M00001589A:D12	77678
468 .	1/28/98	468	RTA00000198AF.a.18.1	M00001561C:E11	0
469	1/28/98	469	RTA00000190AF.n.2.1	M00003963A:E03	5650
470	1/28/98	470	RTA00000198AF.f.16.1	M00001614A:E06	0
471	1/28/98	471	RTA00000188AF.e.2.1	M00003763B:H01	0
472 473	1/28/98 1/28/98	472 472	RTA00000192AF.p.17.1	M00004214C:H05	11451
	1/28/98	473	RTA00000196F.i.3.1 RTA00000192AR.d.1.3	M00001387A:E10 M00004130D:H01	0
474 475	1/28/98	474 475	RTA00000192AR.d.1.3 RTA00000187AR.m.3.3	M00004130D:H01	14507
475	1/28/98			M00001082C:B12 M00004135B:G01	17055
477	1/28/98	476 477	RTA00000200R.g.15.1 RTA00000180AR.e.22.2	M00004133B:G01 M00001423A:G05	22898
478	1/28/98	477	RTA00000180AR.e.22.2 RTA00000192AR.o.24.2	M00001423A.G03 M00004210B:B05	7714
479	1/28/98	479	RTA00000192AR.0.24.2 RTA00000197R.l.22.1	M00004210B:B03	7191 6962
480	1/28/98	480	RTA00000197R.1.22.1 RTA00000181AF.o.08.2	M00001328A.C11 M00001457C:H12	849
481	1/28/98	481	RTA00000181A1.0.08.2 RTA00000179AR.1.22.2	M00001457C:H12 M00001405B:E09	4314
482	1/28/98	482	RTA00000173AR.1.22.2 RTA00000187AF.j.7.1	M00001403B:E03	78091
483	1/28/98	483	RTA00000197AF.J.7.1	M00001079C:101	4642
484	1/28/98	484	RTA00000192Ar.ii.19.1	M00004102C:A07	15767
485	1/28/98	485	RTA000001991.g.20.2 RTA00000196AF.c.14.1	M00003300D:A01	23105
486	1/28/98	486	RTA00000190AR.p.22.2	M00001332B:104	16368
487	1/28/98	487	RTA00000170AR.p.22.2	M00003777A:E11	9807
488	1/28/98	488	RTA000001781.I.3.1 RTA00000179AR.1.22.4	M00001035A:110	4314
489	1/28/98	489	RTA00000177AR.1.22.4 RTA00000186AF.h.22.1	M00001403B:C00	16485
490	1/28/98	490	RTA00000198AF.n.05.1	M00001634B:C10	24157
491	1/28/98	491	RTA00000196F.k.11.1	M0000130771:G01 M00001399C:H12	3
492	1/28/98	492	RTA00000198AF.b.8.1	M00001597C:H12	22636
493	1/28/98	493	RTA00000177AF.m.17.1	M00001357B:G10	14391
	5. , 0	- <del>-</del>	142		

SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
494	1/28/98	494	RTA00000200AF.k.1.1	M00004188C:A09	40040
495	1/28/98	495	RTA00000200AF.k.1.1 RTA00000185AF.j.21.1		40049
496	1/28/98	496	RTA00000189AF.j.21.1	M00001597A:E12	0
497	1/28/98	497	RTA00000198AF.o.09.1	M00003975B:F03	2378
498	1/28/98	498	RTA00000190AF.h.12.1	M00003751B:A05	4310
499	1/28/98	499	RTA00000190AF.II.12.1 RTA00000199F.b.22.2	M00003917C:D03	12977
500	1/28/98	500	RTA00000179AR.m.07.5	M00003791C:E09	17018
501	1/28/98	501	RTA00000179AR.m.07.3	M00001405D:D11	0
502	1/28/98	502	RTA00000200R.R.11.1 RTA00000197AF.o.23.1	M00004197C:F03	9796
503	1/28/98	503		M00001549A:A09	12682
504	1/28/98	503	RTA00000197AF.k.9.1	M00001500C:C08	3138
505	1/28/98	505	RTA00000198AF.g.2.1	M00001615C:D02	16640
506	1/28/98	506	RTA00000188AF.n.03.1	M00003801B:B10	9443
507	1/28/98	507	RTA00000198R.o.09.1	M00003751B:A05	4310
508	1/28/98	508	RTA00000198AF.c.5.1	M00001573D:F10	53802
509	1/28/98	509	RTA00000187AF.i.14.2	M00001679B:H07	19406
510	1/28/98	510	RTA00000183AF.p.17.1	M00001543A:H12	5158
511	1/28/98	511	RTA00000178AF.n.23.1	M00001387B:E02	3298
512	1/28/98	512	RTA00000196AF.g.10.1	M00001376B:A02	12498
513	1/28/98	512	RTA00000191AF.c.3.1	M00003987D:D06	3549
514	1/28/98	514	RTA00000197AF.h.14.1	M00001477B:F04	7045
515	1/28/98	514 515	RTA00000196AF.n.02.1	M00001417D:A04	39260
516	1/28/98	516	RTA00000196AF.f.18.1	M00001370D:A12	14506
517	1/28/98	517	RTA00000200AF.e.23.1	M00004107B:A06	14686
518	1/28/98	517	RTA00000184AF.e.14.1	M00001549C:D02	16347
519	1/28/98	518	RTA00000199AF.n.22.1	M00003971A:A06	23064
520	1/28/98	520	RTA00000183AF.a.24.2	M00001499B:A11	10539
520	2/24/98	958	RTA00000195AF.c.8.1	M00001678B:H01	0
521	1/28/98	521	RTA00000195AF.c.8.1	M00001678B:H01	0
522	1/28/98	522	RTA00000197AF.p.12.1	M00001552B:G05	0
523	1/28/98	523	RTA00000178AR.h.17.2	M00001376A:C05	23824
524	1/28/98	523 524	RTA00000198AF.d.4.1	M00001586D:E02	22435
525	1/28/98	524 525	RTA00000191AF.j.24.1	M00004076B:G03	0
526	1/28/98	526	RTA00000198AF.c.7.1	M00001575D:G05	19181
527	1/28/98	527	RTA00000185AF.e.20.1	M00001585A:D06	5865
528	1/28/98	528	RTA00000198R.m.23.1	M00001684B:G03	38469
529	1/28/98	529	RTA00000200F.n.09.2 RTA00000178AF.b.13.1	M00004249D:B08	12391
530	1/28/98	530		M00001364A:E11	3114
531	1/28/98	531	RTA00000185AF.d.24.2	M00001582D:F05	0
532	1/28/98	532	RTA00000195F.a.3.1	M00001368A:A03	27179
533	1/28/98	533	RTA00000177AF.o.4.1	M00001358C:C06	0
534	1/28/98	534	RTA00000177AR.m.13.4	M00001355A:C12	4175
535	1/28/98	535	RTA0000010(AF = 10.1	M00004405D:C04	11397
536	1/28/98	536	RTA00000196AF.n.19.1	M00001423D:D12	6881
537	1/28/98	537	RTA00000193AR.a.2.3	M00004216D:D03	0
538	1/28/98	538	RTA00000188AF.g.14.1	M00003774C:D02	0
539	1/28/98	539	RTA00000177AR.m.13.3	M00001355A:C12	4175
540	1/28/98	539 540	RTA00000197AR.b.13.1	M00001445B:E04	9560
541	1/28/98	540 541	RTA00000179AF.b.10.3	M00001391D:D10	0
542	1/28/98	541 542	RTA0000197AR.b.16.1	M00001445C:A08	0
J72	1/40/70	J42	RTA00000198R.p.12.1	M00003763D:E10	8878

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
C 40	Appln	Appln			
543	1/28/98	543	RTA00000200AF.i.19.1	M00004167A:H03	14722
544	1/28/98	544	RTA00000196F.j.13.1	M00001396D:B03	23170
545	1/28/98	545	RTA00000196F.a.2.1	M00001338B:E02	3575
546	1/28/98	546	RTA00000197F.i.6.1	M00001487C:D06	12149
547	1/28/98	547	RTA00000196AF.g.8.1	M00001375B:G12	39665
548	1/28/98	548	RTA00000179AF.f.23.3	M00001397B:G03	35258
549	1/28/98	549	RTA00000198AF.c.16.1	M00001579C:B11	26801
550	1/28/98	550	RTA00000183AF.g.14.1	M00001513D:A03	0
551	1/28/98	551	RTA00000200AR.c.24.1	M00004076D:D04	15972
552	1/28/98	552	RTA00000193AF.b.24.1	M00004237D:D08	35
553	1/28/98	553	RTA00000201F.b.22.1	M00004344B:H04	35728
554	1/28/98	554	RTA00000186AR.e.07.4	M00001623D:G03	4175
555	1/28/98	555	RTA00000198AF.j.08.1	M00001651B:A11	10983
556	1/28/98	556	RTA00000199F.f.17.2	M00003845D:B04	22905
557	1/28/98	557	RTA00000198AF.d.9.1	M00001587D:A10	8841
558	1/28/98	558	RTA00000186AR.h.14.1	M00001632D:H07	0
559	1/28/98	559	RTA00000197AF.p.20.1	M00001554B:B07	22795
560	1/28/98	560	RTA00000184AF.i.23.3	M00001556A:F11	1577
561	1/28/98	561	RTA00000185AR.d.10.1	M00001579C:H10	0
562	1/28/98	562	RTA00000196F.j.12.1	M00001396A:H03	19294
563	1/28/98	563	RTA00000192AR.o.16.2	M00004208B:F05	9061
564	1/28/98	564	RTA00000200AF.g.18.1	M00004138B:B11	1600
565	1/28/98	565	RTA00000191AF.c.10.1	M00003989B:F11	40422
566	1/28/98	566	RTA00000195F.a.4.1	M00001372C:G12	20470
567	1/28/98	567	RTA00000177AR.m.13.1	M00001355A:C12	4175
568	1/28/98	568	RTA00000196AF.p.01.2	M00001430A:A02	87143
569	1/28/98	569	RTA00000196AF.I.23.1	M00001412A:E04	12052
570	1/28/98	570	RTA00000183AF.a.19.2	M00001499A:A05	3788
571	1/28/98	571	RTA00000198AF.b.14.1	M00001569C:B06	801
572	1/28/98	572	RTA00000181AF.I.16.2	M00001454D:E05	13532
573	1/28/98	573	RTA00000196AF.b.7.1	M00001344A:G07	7774
574	1/28/98	574	RTA00000192AF.f.3.1	M00004146C:C11	5257
575	1/28/98	575	RTA00000186AF.I.12.2	M00001645A:C12	19267
576	1/28/98	576	RTA00000196AF.c.7.1	M00001350B:G11	0
577	1/28/98	577	RTA00000190AF.a.24.2	M00003901B:A05	0
578	1/28/98	578	RTA00000180AF.g.17.1	M00001426A:A09	16653
579	1/28/98	579	RTA00000200F.i.7.1	M00004157D:B03	22322
580	1/28/98	580	RTA00000197F.a.12.1	M00001438B:B09	7895
581	1/28/98	581	RTA00000191AF.p.3.2	M00004104B:F11	17
582	1/28/98	582	RTA00000178AR.d.12.4	M00001368A:D07	2476
583	1/28/98	583	RTA00000190AR.h.12.2	M00003917C:D03	12977
584	1/28/98	584	RTA00000190AR.c.03.1	M00003904C:A08	0
585	1/28/98	585	RTA00000198AF.n.18.1	M00001771A:A07	16715
586	1/28/98	586	RTA00000199R.o.11.1	M00003976C:A10	23172
587	1/28/98	587	RTA00000199F.a.3.1	M00003772D:E10	16617
588	1/28/98	588	RTA00000191AF.b.4.1	M00003983C:F03	14936
589	1/28/98	589	RTA00000192AF.I.1.1	M00004183C:D07	16392
590	1/28/98	590	RTA00000190AF.d.2.1	M00003906B:F12	2444
591	1/28/98	591	RTA00000197AF.h.1.1	M00001470A:H01	13075
592	1/28/98	592	RTA00000186AF.e.18.1	M00001624C:A06	0
			1.45		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
593	Appin 1/28/98	Appln	DT400001060 140 :		
594	1/28/98	593	RTA00000196R.c.14.2	M00001352B:F04	23105
595		594	RTA00000181AR.e.04.3	M00001448A:G09	11825
595	1/28/98	595	RTA00000195R.a.06.1	M00001394A:E04	35265
	2/24/98	1065	RTA00000195R.a.06.1	M00001394A:E04	35265
596	1/28/98	596	RTA00000184AF.d.9.1	M00001548A:B11	6515
597	1/28/98	597	RTA00000198F.a.4.1	M00001557A:F01	9635
598	1/28/98	598	RTA00000197F.e.10.1	M00001454B:D08	13154
599	1/28/98	599	RTA00000179AF.o.5.1	M00001408D:D04	6172
600	1/28/98	600	RTA00000177AF.g.4.1	M00001346B:B07	4119
601	1/28/98	601	RTA00000184AF.i.10.2	M00001555A:B01	3744
602	1/28/98	602	RTA00000195AF.b.21.1	M00001595B:A09	39055
602	2/24/98	317	RTA00000195AF.b.21.1	M00001595B:A09	39055
603	1/28/98	603	RTA00000183AR.d.11.3	M00001504D:G06	6420
604	1/28/98	604	RTA00000200AF.j.15.1	M00004185D:E04	5849
605	1/28/98	605	RTA00000196F.e.9.1	M00001361A:H07	23300
606	1/28/98	606	RTA00000179AR.e.01.4	M00001395A:C09	2493
607	1/28/98	607	RTA00000200AF.k.12.1	M00004198B:D02	7359
608	1/28/98	608	RTA00000192AF.p.8.1	M00004212B:C07	2379
609	1/28/98	609	RTA00000196AF.n.05.1	M00001418B:F07	12531
610	1/28/98	610	RTA00000200AF.k.2.1	M00004188D:G08	35924
611	1/28/98	611	RTA00000196F.I.13.2	M00001408A:H04	0
612	1/28/98	612	RTA00000197AR.e.22.1	M00001456A:H02	78758
613	1/28/98	613	RTA00000177AF.k.18.4	M0000145071:H02	53729
614	1/28/98	614	RTA00000201F.f.03.1	M00001332C:A03	22633
615	1/28/98	615	RTA00000197R.p.20.1	M00001554B:B07	22795
616	1/28/98	616	RTA00000188AF.m.07.1	M00001334B:B07	23183
617	1/28/98	617	RTA00000179AF.d.13.3	M00003798D:E03	
618	1/28/98	618	RTA00000192AF.a.14.1	M00001334A.F01	6583 6874
619	1/28/98	619	RTA00000201F.g.08.1	M00004111D:A08	
620	1/28/98	620	RTA000002011.g.08.1	M00004692A:E07	0
621	1/28/98	621	RTA00000201R.g.08.2	M00004692A:E07	0
622	1/28/98	622	RTA00000186AR.m.14.2		0
623	1/28/98	623	RTA00000198R.b.24.1	M00001649B:G12 M00001571D:B11	9800
624	1/28/98	624	RTA00000176R.0.24.1	M00001371D:B11 M00004275A:B03	19047
625	1/28/98	625	RTA00000196AF.c.19.1	M00004273A:B03 M00001352C:G09	7866 5025
626	1/28/98	626	RTA00000190AL.C.19.1	M00001532C:G09 M00001579D:C03	5935
627	1/28/98	627	RTA00000199F.h.15.2		6539
628	1/28/98	628	RTA000001991.II.13.2 RTA00000198AF.g.16.1	M00003870A:C05	22269
629	1/28/98	629	RTA00000198AF.g.10.1 RTA00000199R.m.23.1	M00001621D:D03	6602
630	1/28/98	630		M00003945A:E09	40166
631	1/28/98	631	RTA00000183AR.g.03.2	M00001512D:G09	3956
632	1/28/98	632	RTA00000200AF.h.19.2	M00004151D:E03	0
633	1/28/98	633	RTA00000183AR.g.03.1	M00001512D:G09	3956
634	1/28/98		RTA00000197F.i.8.1	M00001488A:E01	6292
635	1/28/98	634	RTA00000192AF.j.6.1	M00004172C:D08	11494
636		635	RTA00000181AF.p.7.3	M00001460A:E01	38773
637	1/28/98	636	RTA00000196F.k.20.1	M00001402B:F12	6324
638	1/28/98	637	RTA00000200AF.g.15.1	M00004135B:G01	22898
	1/28/98	638	RTA00000193AF.I.05.2	M00004348A:A02	2815
639	1/28/98	639	RTA00000199AF.j.1.1	M00003881C:G09	6006
640	1/28/98	640	RTA00000190AF.f.5.1	M00003909A:H04	5015
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SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appin	Appln			
641	1/28/98	641	RTA00000198F.a.10.1	M00001558A:E11	6695
642	1/28/98	642	RTA00000189AF.i.14.1	M00003868B:G11	0
643	1/28/98	643	RTA00000184AF.c.9.1	M00001546C:G10	16245
644	1/28/98	644	RTA00000197F.i.12.1	M00001489B:A06	3605
645	1/28/98	645	RTA00000177AF.k.9.1	M00001352A:E02	16245
646	1/28/98	646	RTA00000186AF.d.24.1	M00001623C:H07	3114
647	1/28/98	647	RTA00000197F.m.11.1	M00001530B:D10	16488
648	1/28/98	648	RTA00000199F.i.9.1	M00003878C:E04	7
649	1/28/98	649	RTA00000190AR.I.19.2	M00003946A:H10	88204
650	1/28/98	650	RTA00000183AR.n.17.1	M00001539B:H06	9800
651	1/28/98	651	RTA00000189AR.d.22.2	M00003844C:B11	6539
652	1/28/98	652	RTA00000178AR.m.21.4	M00001385A:F12	7861
653	1/28/98	653	RTA00000178AR.m.21.5	M00001385A:F12	7861
654	1/28/98	654	RTA00000186AF.j.21.2	M00001639D:B07	22506
655	1/28/98	655	RTA00000186AF.g.8.2	M00001630B:A11	8065
656	1/28/98	656	RTA00000178AR.h.22.3	M00001376B:A08	19230
657	1/28/98	657	RTA00000178AR.h.22.2	M00001376B:A08	19230
658	1/28/98	658	RTA00000193AF.a.1.1	M00004216D:C03	16501
659	1/28/98	659	RTA00000185AR.k.23.2	M00001601A:E09	0
660	1/28/98	660	RTA00000197AF.p.16.1	M00001552D:G08	6013
661	1/28/98	661	RTA00000198R.b.04.1	M00001565A:H09	0
662	1/28/98	662	RTA00000201R.a.15.1	M00004312B:H07	57347
663	1/28/98	663	RTA00000199F.g.21.2	M00003861C:H02	34826
664	1/28/98	664	RTA00000195R.a.23.1	M00001449C:H12	86432
665	1/28/98	665	RTA00000197AF.1.22.1	M00001528A:C11	6962
666	1/28/98	666	RTA00000198F.i.10.1	M00001640B:F03	12792
667	1/28/98	667	RTA00000197AF.d.16.1	M00001452A:E07	23505
668	1/28/98	668	RTA00000178AF.i.17.1	M00001377C:E12	0
669	1/28/98	669	RTA00000192AF.c.2.1	M00004121B:G01	0
670	1/28/98	670	RTA00000186AF.p.17.3	M00001656B:A07	38383
671	1/28/98	671	RTA00000185AR.d.08.1	M00001579C:E09	6562
672	1/28/98	672	RTA00000196AF.h.09.1	M00001382B:F12	8015
673	1/28/98	673	RTA00000199F.m.3.1	M00003931B:A11	0
674	1/28/98	674	RTA00000197AR.e.24.1	M00001456B:F10	39250
675	1/28/98	675	RTA00000179AR.b.21.3	M00001392C:D05	4366
676	1/28/98	676	RTA00000197AR.m.14.1	M00001531B:E09	14879
677	1/28/98	677	RTA00000197AF.i.19.1	M00001490B:H11	39554
678	1/28/98	678	RTA00000190AF.j.3.1	M00003922A:D02	2705
679	1/28/98	679	RTA00000197AF.d.11.1	M00001451C:E01	27260
680	1/28/98	680	RTA00000177AF.f.10.1	M00001345A:E01	6420
681	1/28/98	681	RTA00000180AF.1.04.2	M00001432D:F05	11159
682	1/28/98	682	RTA00000125A.j.16.1	M00001544A:E06	0
683	1/28/98	683	RTA00000187AR.j.01.1	M00001679C:D01	79028
684	1/28/98	684	RTA00000200AR.b.11.1	M00004040A:G12	12043
685	1/28/98	685	RTA00000200F.i.9.1	M00004159C:F09	36756
686	1/28/98	686	RTA00000201F.f.07.1	M00004497A:H03	51116
687	1/28/98	687	RTA00000197AF.g.4.1	M00001464B:B03	8821
688	1/28/98	688	RTA00000193AF.g.3.1	M00004050D:A06	5567
689	1/28/98	689	RTA00000197AF.o.4.1	M00001542B:C06	4121
690	1/28/98	690	RTA00000198R.1.21.1	M00001673A:A04	19194

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
691	1/28/98	691	RTA00000195F.a.10.1	M00001401C:H03	6803
692	1/28/98	692	RTA00000199F.e.4.1	M00003820B:C05	0
693	1/28/98	693	RTA00000198F.m.12.1	M00001679C:D05	4
694	1/28/98	694	RTA00000201R.c.19.1	M00004370A:G05	22357
695	1/28/98	695	RTA00000197F.m.5.1	M00001528C:H04	10872
696	1/28/98	696	RTA00000180AR.d.16.3	M00001419D:C10	11393
697	1/28/98	697	RTA00000193AF.e.21.1	M00004271B:B06	0
698	1/28/98	698	RTA00000179AF.g.1.3	M00001397C:A10	7588
699	1/28/98	699	RTA00000178AF.a.12.1	M00001362B:H06	0
700	1/28/98	700	RTA00000183AF.i.18.2	M00001529D:H02	40129
701	1/28/98	701	RTA00000199AF.o.10.1	M00003974C:E04	0
702	1/28/98	702	RTA00000177AR.b.8.5	M00001340B:A06	17062
703	1/28/98	703	RTA00000198F.I.09.1	M00001664B:D06	3611
704	1/28/98	704	RTA00000190AF.o.12.1	M00003972D:C09	3438
705	1/28/98	705	RTA00000196F.i.5.1	M00001387B:A06	0
706	1/28/98	706	RTA00000177AF.i.6.4	M00001350A:B08	0
707	1/28/98	707	RTA00000179AF.p.15.1	M00001411D:F05	5622
708	1/28/98	708	RTA00000201F.f.06.1	M00004496C:H03	23771
709	1/28/98	709	RTA00000192AF.d.18.1	M00004135D:G02	0
710	1/28/98	710	RTA00000196AF.1.3.1	M00001405B:D07	20864
711	1/28/98	711	RTA00000198F.i.2.1	M00001637B:E07	8076
712	1/28/98	712	RTA00000201F.b.21.1	M00004341B:G03	9071
713	1/28/98	713	RTA00000198AF.g.21.1	M00001624A:F09	6273
714	1/28/98	714	RTA00000199R.g.07.1	M00003853D:D03	0
715	1/28/98	715	RTA00000197AR.k.11.1	M00001500D:E10	53758
716	1/28/98	716	RTA00000200F.p.05.1	M00004285C:A08	3984
717	1/28/98	717	RTA00000200F.o.10.2	M00004269B:C08	36432
718	1/28/98	718	RTA00000196F.I.14.2	M00001408B:G06	23144
719	1/28/98	719	RTA00000183AF.b.12.1	M00001500A:B02	0
720 721	1/28/98	720	RTA00000197AF.f.14.1	M00001459B:C09	3732
721	1/28/98	721	RTA00000180AF.c.4.1	M00001417B:C04	5415
723	1/28/98	722	RTA00000199R.j.24.1	M00003895C:A10	0
723 724	1/28/98 1/28/98	723 724	RTA00000183AF.p.24.1	M00001543C:F01	3116
725	1/28/98	724 725	RTA00000177AR.f.15.4	M00001345B:E10	9062
726	1/28/98	723 726	RTA00000197AF.b.1.1	M00001441D:E04	12134
727	1/28/98	720 727	RTA00000200R.f.10.1	M00004111D:B07	4
728	1/28/98	727	RTA00000184AF.n.12.2	M00001561D:C11	3727
729	1/28/98	729	RTA00000177AR.f.17.4 RTA00000184AF.a.19.1	M00001345C:B01	8594
730	1/28/98	730	RTA00000184AF.a.19.1 RTA00000192AF.o.11.1	M00001544C:C06	2628
731	1/28/98	731	RTA00000192AF.0.11.1 RTA00000184F.k.02.1	M00004205D:F06	0
732	1/28/98	732	RTA00000186AF.p.01.2	M00001557B:H10	5192
733	1/28/98	733	RTA00000180AF.p.01.2 RTA00000200AF.d.20.1	M00001654D:G11	40440
734	1/28/98	734	RTA00000200AF.d.21.1	M00004087A:G08	26600
735	1/28/98	735	RTA00000192AF.b.11.1	M000041174.C01	0
736	1/28/98	736	RTA00000192AI.b.11.1 RTA00000196AF.o.13.1	M00004117A:G01 M00001428B:A09	40014
737	1/28/98	737	RTA00000130AL.0.13.1	M00003880B:C08	0
738	1/28/98	738	RTA00000183AF.o.8.1	M00003880B:C08 M00001540C:B10	2917
739	1/28/98	739	RTA00000181AF.p.12.3	M00001340C:B10 M00001460C:H02	8927
740	1/28/98	740	RTA00000198AF.d.15.1	M00001400C:H02 M00001590C:H08	22204 5997
			4.40		J77 /

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
741	Appln	Appln	RTA00000196AF.n.22.1	M00001424B:H04	9572
741	1/28/98	741 742	RTA00000170AF.m.1.1	M00001424B.1104 M00001353D:D10	14929
742 743	1/28/98	742 743	RTA00000177AF.III.111 RTA00000178AF.k.9.1	M00001333B:B10 M00001381B:F06	16342
	1/28/98	743 744	RTA00000178AF.K.9.1 RTA00000196F.m.4.1	M00001381B.F03	7958
744	1/28/98		RTA00000190F.III.4.1 RTA00000183AF.m.11.1	M00001415A:103	8927
745	1/28/98	745 746	RTA00000183AF.ii.11.1 RTA00000178AF.i.01.2	M00001330D:G02 M00001376B:F03	4
746	1/28/98	746 747	RTA00000178AF.I.01.2 RTA00000190AF.c.6.1	M00001370B:103	4780
747	1/28/98	747 748	RTA00000190AF.b.24.1	M00003504D:B10	19047
748 749	1/28/98 1/28/98	740 749	RTA00000178AR.i.13.4	M00001377B:H01	0
	1/28/98	749 750	RTA00000178AR.1.13.4 RTA00000198AF.a.19.1	M00001577B:1107 M00001561D:C05	0
750	1/28/98	750 751	RTA00000179AF.c.4.3	M00001301D:C03	0
751 753	1/28/98	751 752	RTA00000179A1.c.4.3 RTA00000192AF.o.7.1	M00001392D:D11 M00004204D:C03	5275
752 753	1/28/98	752 753	RTA00000192AF.o.17.1	M00004204D:E03	5275
753 754	1/28/98	753 754	RTA00000192AF.0.17.1	M00004200D:B10 M00001681A:F03	4482
754 755	1/28/98	755	RTA00000199F.c.21.2	M000010817.103 M00003803C:D09	5070
756	2/24/98	133	RTA00000494F.a.02.1	M00003803C:D07	9738
75 <b>0</b> 757	2/24/98	2	RTA00000404F.a.02.1 RTA00000406F.d.16.1	M00001383B:E12	15040
757 758	2/24/98	3	RTA00000420F.d.18.1	M00003875C:B02	63074
759	2/24/98	4	RTA00000339F.i.20.1	M00004103C:D05	4356
760	2/24/98	5	RTA000003337.i.20.1 RTA00000408F.o.12.2	M00001430D:200	78578
760 761	2/24/98	6	RTA00000119A.j.15.1	M000013727:7110 M00001460A:E11	79623
761 762	2/24/98	7	RTA00000119A.J.13.1 RTA00000413F.d.12.1	M000014007:211 M00004088C:A12	66467
762 763	2/24/98	8	RTA00000413F.i.12.1	M00003914D:E03	9118
763 764	2/24/98	9	RTA00000425F.n.12.1	M00003911B:E03	15051
765	2/24/98	10	RTA00000350R.c.12.1	M00003510C:3110	9728
766	2/24/98	11	RTA00000330K.c.12.1 RTA00000411F.k.05.1	M00001350D:R01	64777
767	2/24/98	12	RTA00000339F.b.17.1	M00003656D:E12	10020
768	2/24/98	13	RTA000003371.8.1711	M00003879B:G02	38587
769	2/24/98	14	RTA00000419F.b.09.1	M00001694C:F12	78128
770	2/24/98	15	RTA00000419F.c.19.1	M00003820A:A08	64346
771	2/24/98	16	RTA00000399F.a.02.1	M00001366D:C12	0
772	2/24/98	17	RTA00000411F.m.15.1	M00003868D:B09	78014
773	2/24/98	18	RTA00000420F.g.12.1	M00004895B:G04	0
774	2/24/98	19	RTA00000123A.k.23.1	M00001533A:G05	80313
775	2/24/98	20	RTA00000404F.m.04.2	M00001641A:A11	22720
776	2/24/98	21	RTA00000411F.g.08.1	M00003822D:D04	45815
777	2/24/98	22	RTA00000130A.m.15.1	M00001622A:H12	81630
778	2/24/98	23	RTA00000411F.k.20.1	M00003854B:A07	64973
779	2/24/98	24	RTA00000423F.I.09.1	M00004118A:H08	9752
780	2/24/98	25	RTA00000418F.k.05.1	M00001637A:A06	73021
781	2/24/98	26	RTA00000423F.h.18.1	M00003876C:D02	37972
<b>78</b> 2	2/24/98	27	RTA00000420F.n.19.2	M00005259B:C01	0
783	2/24/98	28	RTA00000422F.p.06.2	M00001661A:B11	39282
784	2/24/98	29	RTA00000404F.n.16.2	M00001649C:D05	39095
785	2/24/98	30	RTA00000411F.m.24.1	M00003870B:B08	77568
786	2/24/98	31	RTA00000134A.j.10.1	M00001534A:G06	81383
787	2/24/98	32	RTA00000409F.j.02.1	M00001611B:E06	76417
788	2/24/98	33	RTA00000403F.j.15.1	M00001539B:G07	23840
789	2/24/98	34	RTA00000411F.n.11.1	M00003875A:B01	77276
790	2/24/98	35	RTA00000339F.i.13.1	M00001434A:B10	5970

SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
791	2/24/98	36	RTA00000414F.e.22.1	M00005257D:A06	Λ
792	2/24/98	37	RTA00000414F.e.22.1 RTA00000406F.o.15.1	M00003237D:A06 M00003988D:A08	0 37482
793	2/24/98	38	RTA00000400F.0.13.1 RTA00000412F.g.04.2	M00003988D:A08	
794	2/24/98	39	RTA00000412F.g.04.2 RTA00000187AF.l.7.1		64457
795	2/24/98	40	RTA00000187AF.1.7.1 RTA00000352R.1.06.1	M00001680D:F08	10539
796	2/24/98	41	RTA00000332R.1.00.1 RTA00000419F.b.12.1	M00004187D:H06	40343
797	2/24/98	42	RTA00000419F.b.12.1 RTA00000423F.k.17.2	M00003806B:C09	63148
798	2/24/98	43	RTA00000423F.K.17.2 RTA00000420F.g.04.1	M00004038A:F02 M00004891B:B12	37512 0
799	2/24/98	44	RTA000004201.g.04.1 RTA00000418F.k.14.1	M00004691B:B12 M00001639A:H06	•
800	2/24/98	45	RTA00000418F.R.14.1 RTA00000409F.I.12.1	M00001639A.H06 M00001615A:D06	76133
801	2/24/98	46	RTA00000404F.r.12.1 RTA00000404F.c.20.1	M00001613A:D06	26755
802	2/24/98	47	RTA00000404F.c.20.1 RTA00000423F.g.09.1	M00001394A:D08 M00003904C:B06	39088
803	2/24/98	48	RTA000004231.g.09.1 RTA00000411F.b.24.1	M00003904C:B06 M00001677B:A12	38958
804	2/24/98	49	RTA000004111.0.24.1 RTA00000406F.d.12.1	M00001677B:A12 M00003875C:A01	30041
805	2/24/98	50	RTA000004001.d.12.1 RTA00000411F.f.02.1	M00003873C:A01 M00003813A:D08	38575
806	2/24/98	51	RTA000004111.1.02.1 RTA00000129A.n.21.1	M00003813A:D08	63386 79381
<b>8</b> 07	2/24/98	52	RTA00000129A.m.21.1 RTA00000409F.m.12.1	M00001604A:C11	
808	2/24/98	53	RTA000004091.iii.12.1 RTA00000410F.c.04.1	M00001618B:D09	73490 74099
809	2/24/98	54	RTA00000399F.o.01.1	M00001633D:G09	
810	2/24/98	55	RTA000003991.0.01.1 RTA00000406F.m.09.1	M00001393C.E01 M00003914C:H05	3055 26891
811	2/24/98	56	RTA000004101.iii.03.1	M00003914C.H03	77884
812	2/24/98	57	RTA000004111.0.00.1	M00001676C.A04 M00001615B:G07	73143
813	2/24/98	58	RTA000004091.ii.21.1	M00007073B:G07	73143 0
814	2/24/98	59	RTA00000346F.j.08.1	M00003234D.A10 M00003879B:A06	39951
815	2/24/98	60	RTA000003401.j.08.1 RTA00000413F.p.17.2	M00005175B:A00	0
816	2/24/98	61	RTA00000410F.n.07.1	M00003130D:G00 M00001662A:G01	78823
817	2/24/98	62	RTA00000339F.n.10.1	M00001002A:G01	13719
818	2/24/98	63	RTA00000404F.1.20.2	M00001433B:108	38638
819	2/24/98	64	RTA00000413F.d.18.1	M00001037B:H03	65305
820	2/24/98	65	RTA00000404F.p.04.2	M00001652D:E05	39069
821	2/24/98	66	RTA00000405F.g.19.2	M00001632B:E03	37150
822	2/24/98	67	RTA00000409F.a.22.1	M00001583B:F02	75200
823	2/24/98	68	RTA00000339F.n.03.1	M00001303B:102	0
<b>8</b> 24	2/24/98	69	RTA00000405F.o.18.1	M00003839A:D07	11016
825	2/24/98	70	RTA00000409F.m.13.1	M00001618B:E05	0
826	2/24/98	71	RTA00000120A.d.24.1	M00001464A:E10	5085
827	2/24/98	72	RTA00000347F.a.08.1	M00001592C:G04	3135
828	2/24/98	73	RTA00000413F.p.15.2	M00005136D:D06	0
829	2/24/98	74	RTA00000408F.e.22.2	M00001476B:F08	26930
830	2/24/98	75	RTA00000350R.i.22.1	M00001608B:A03	0
<b>8</b> 31	2/24/98	76	RTA00000413F.d.16.1	M00004088C:F01	63331
832	2/24/98	77	RTA00000420F.j.22.1	M00005173B:F01	0
833	1/28/98	59	RTA00000195AF.b.13.1	M00001560D:A03	12605
833	2/24/98	78	RTA00000195AF.b.13.1	M00001560D:A03	12605
834	2/24/98	79	RTA00000419F.g.08.1	M00003842C:D11	66700
835	2/24/98	80	RTA00000122A.g.16.1	M00001514A:B04	81366
836	2/24/98	81	RTA00000419F.c.16.1	M00003819D:B01	65254
837	2/24/98	82	RTA00000411F.b.03.1	M00001676B:E01	23634
838	2/24/98	83	RTA00000405F.e.11.2	M00001663D:C06	9331
839	2/24/98	84	RTA00000352R.i.15.1	M00004153B:B03	4363
			1.50		.505

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
840	Appln 2/24/98	Appln 85	RTA00000339F.k.22.1	M00001427C:D01	5556
841	2/24/98				5556
842	2/24/98	86 87	RTA00000346F.g.22.1	M00003794D:G03	6371
			RTA00000403F.I.20.1	M00001573A:A06	18267
843	2/24/98	88	RTA00000420F.i.24.1	M00005134B:E08	0
844	2/24/98	89	RTA00000406F.c.08.1	M00003870C:A10	22387
845	2/24/98	90	RTA00000411F.a.02.1	M00001675B:E02	78537
846	2/24/98	91	RTA00000355R.e.15.1	M00004316A:G09	22639
847	2/24/98	92	RTA00000412F.l.04.1	M00003989D:F12	66372
848	2/24/98	93	RTA00000413F.p.24.1	M00005139A:H03	0
849	2/24/98	94	RTA00000406F.a.23.1	M00003867B:D10	38712
850	2/24/98	95	RTA00000423F.h.05.1	M00003906A:F04	14837
851	2/24/98	96	RTA00000120A.n.19.3	M00001467A:H07	80004
852	2/24/98	97	RTA00000403F.e.01.1	M00001473A:C11	38965
853	2/24/98	98	RTA00000411F.I.03.1	M00003854D:A12	62702
854	2/24/98	99	RTA00000420F.m.19.1	M00005254D:B08	0
855	2/24/98	100	RTA00000339F.o.23.1	M00001473C:D09	7801
856	2/24/98	101	RTA00000121A.m.2.1	M00001507A:A11	81064
857	2/24/98	102	RTA00000420F.g.06.1	M00004891C:D04	0
858	2/24/98	103	RTA00000418F.j.12.1	M00001626C:G08	73316
859	2/24/98	104	RTA00000421F.n.03.1	M00001675C:A04	1638
860	2/24/98	105	RTA00000346F.d.08.1	M00001671A:A10	39955
861	2/24/98	106	RTA00000339F.f.11.1	M00001391C:H02	5832
862	2/24/98	107	RTA00000125A.g.16.1	M00001544A:C09	21497
863	2/24/98	108	RTA00000418F.o.18.1	M00001661B:F06	78676
864	2/24/98	109	RTA00000422F.p.24.2	M00001658A:G09	5823
865	2/24/98	110	RTA00000408F.k.14.1	M00001486B:E12	73856
866	2/24/98	111	RTA00000128A.i.20.1	M00001560A:F03	9900
867	2/24/98	112	RTA00000422F.c.11.1	M00003841D:A04	2643
868	2/24/98	113	RTA00000401F.e.02.1	M00003805B:C04	0
869	2/24/98	114	RTA00000341F.m.21.1	M00004051D:E01	0
870	2/24/98	115	RTA00000418F.h.19.1	M00001590B:C05	0
871	2/24/98	116	RTA00000403F.o.15.1	M00001582B:E12	39140
872	2/24/98	117	RTA00000341F.m.13.1	M00003987B:E12	26502
873	2/24/98	118	RTA00000408F.h.03.1	M00001479D:H03	78382
874	2/24/98	119	RTA00000423F.k.05.1	M00004036D:F02	37472
875	2/24/98	120	RTA00000401F.m.02.1	M00003907A:F01	1573
876	2/24/98	121	RTA00000418F.p.19.1	M00001677D:B01	78544
877	2/24/98	122	RTA00000420F.f.06.1	M00004115D:D08	64812
878	2/24/98	123	RTA00000122A.j.18.1	M00001516A:D05	81317
879	2/24/98	124	RTA00000420F.d.05.1	M00004092B:E05	64432
880	2/24/98	125	RTA00000403F.m.18.1	M00001576A:B09	39185
881	2/24/98	126	RTA00000422F.j.20.1	M00001653A:G07	22388
882	2/24/98	127	RTA00000411F.j.05.1	M00003841C:F06	40709
883	2/24/98	128	RTA00000403F.a.04.1	M00001448A:B12	23529
884	2/24/98	129	RTA00000118A.d.24.1	M00001416A:H02	81488
885	2/24/98	130	RTA00000406F.f.12.1	M00003879A:C11	21895
886	2/24/98	131	RTA00000418F.g.22.1	M00001585B:F01	74837
887	2/24/98	132	RTA00000418F.m.05.1	M00001650B:C10	73600
888	2/24/98	133	RTA00000404F.1.20.1	M00001639B:H05	38638
889	2/24/98	134	RTA00000408F.i.08.2	M00001482A:H05	75811

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
890	2/24/98	135	RTA00000122A.d.5.1	M00001513A:F05	81155
891	2/24/98	136	RTA00000419F.I.12.1	M00003901C:B01	75710
892	2/24/98	137	RTA00000339R.a.06.1	M00001346A:E04	58694
893	2/24/98	138	RTA00000406F.f.03.1	M00003878C:D08	38687
894	2/24/98	139	RTA00000419F.b.19.1	M00003809A:C01	65534
895	2/24/98	140	RTA00000128A.j.6.2	M00001560A:H10	5316
896	2/24/98	141	RTA00000418F.k.19.1	M00001639C:C02	74932
897	2/24/98	142	RTA00000420F.j.19.1	M00005140C:B10	0
898	2/24/98	143	RTA00000420F.h.13.1	M00004899D:G06	0
899	2/24/98	144	RTA00000349R.f.15.1	M00001472A:D08	75097
900	2/24/98	145	RTA00000419F.g.12.1	M00003842C:G03	66171
901	2/24/98	146	RTA00000404F.n.11.2	M00001649A:E11	38001
902	2/24/98	147	RTA00000422F.c.02.1	M00004118B:A03	2902
903	2/24/98	148	RTA00000419F.n.04.1	M00003975C:F07	13102
904	2/24/98	149	RTA00000419F.o.24.1	M00004031A:F07	65092
905	2/24/98	150	RTA00000419F.k.19.1	M00003877C:G12	75447
906	2/24/98	151	RTA00000341F.c.21.1	M00003789C:F06	7899
907	2/24/98	152	RTA00000127A.i.20.1	M00001555A:B12	81418
908	2/24/98	153	RTA00000422F.g.22.1	M00001585B:A06	22561
909	2/24/98	154	RTA00000340F.b.21.1	M00001533D:A08	8001
910	2/24/98	155	RTA00000413F.h.13.1	M00004107A:D01	65190
911	2/24/98	156	RTA00000125A.k.1.1	M00001545A:B12	0
912	2/24/98	157	RTA00000339F.a.23.1	M00001361B:C07	4022
913	2/24/98	158	RTA00000348R.j.16.1	M00001410A:D07	7005
914	2/24/98	159	RTA00000348R.j.17.1	M00001391D:C06	2641
915	2/24/98	160	RTA00000414F.f.19.1	M00005260B:E11	0
916	2/24/98	161	RTA00000418F.n.22.1	M00001659D:B05	79062
917	2/24/98	162	RTA00000406F.I.08.1	M00003908D:D12	39016
918	2/24/98	163	RTA00000422F.I.23.1	M00001616D:C11	4240
919	2/24/98	164	RTA00000345F.k.06.1	M00001475A:A12	0
920	2/24/98	165	RTA00000409F.j.07.1	M00001611C:H11	75190
921	2/24/98	166	RTA00000418F.m.19.1	M00001654D:A03	8890
922	2/24/98	167	RTA00000399F.I.14.1	M00001590B:G08	3354
923	2/24/98	168	RTA00000411F.e.22.1	M00003812B:D07	63638
924	2/24/98	169	RTA00000347F.a.17.1	M00001366D:C06	16723
925	2/24/98	170	RTA00000422F.n.08.1	M00001632B:E05	38655
926	2/24/98	171	RTA00000404F.n.20.1	M00001650A:C11	26865
927	2/24/98	172	RTA00000420F.i.17.1	M00005101C:B09	0
928	2/24/98	173	RTA00000418F.d.13.1	M00001570A:H01	74309
929	2/24/98	174	RTA00000404F.b.02.1	M00001591B:B12	38984
930	2/24/98	175	RTA00000410F.d.09.1	M00001635B:H01	76964
931	2/24/98	176	RTA00000403F.b.10.1	M00001455C:G07	73268
932	2/24/98	177	RTA00000406F.i.12.1	M00003903D:H11	39080
933	2/24/98	178	RTA00000406F.h.08.1	M00003901C:A08	16228
934	2/24/98	179	RTA00000418F.i.19.1	M00001596D:E03	79180
935	2/24/98	180	RTA00000400F.j.19.1	M00001653C:D10	4086
936	2/24/98	181	RTA00000412F.h.21.1	M00003974D:F02	64348
937	2/24/98	182	RTA00000404F.g.14.1	M00001614D:B08	8858
938	2/24/98	183	RTA00000120A.g.18.1	M00001465A:C12	81255
939	2/24/98	184	RTA00000133A.j.13.1	M00001507A:B02	16846

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
940	2/24/98	185	RTA00000423F.j.05.1	M00003903C:C05	37958
941	2/24/98	186	RTA00000132A.k.6.1	M00001464A:E07	81284
942	2/24/98	187	RTA00000351R.g.11.1	M00003779D:E08	3077
943	2/24/98	188	RTA00000406F.p.04.1	M00004030D:F11	37458
944	2/24/98	189	RTA00000347F.a.13.1	M00001402D:F02	22446
945	2/24/98	190	RTA00000419F.p.23.1	M00004039B:A05	64748
946	2/24/98	191	RTA00000419F.d.17.1	M00003828B:F09	64353
947	2/24/98	192	RTA00000421F.k.15.1	M00001613D:B03	2222
948	2/24/98	193	RTA00000347F.b.10.1	M00001546C:C07	8044
949	2/24/98	194	RTA00000124A.k.5.1	M00001538A:F12	80252
950	2/24/98	195	RTA00000404F.h.22.1	M00001619C:C07	18735
951	2/24/98	196	RTA00000418F.k.10.1	M00001639A:G07	74454
952	2/24/98	197	RTA00000410F.o.05.1	M00001669A:B02	75262
953	2/24/98	198	RTA00000339R.I.14.1	M00001452A:C07	19119
954	2/24/98	199	RTA00000403F.m.13.2	M00001575D:A10	39077
955	2/24/98	200	RTA00000339F.c.02.1	M00001381C:B08	12975
956	2/24/98	201	RTA00000404F.1.09.1	M00001638B:E12	39176
957	2/24/98	202	RTA00000419F.g.22.1	M00003845D:A09	64515
958	2/24/98	203	RTA00000404F.g.21.1	M00001615C:A11	37947
959	2/24/98	204	RTA00000351R.k.19.1	M00003841B:E03	936
960	2/24/98	205	RTA00000138A.n.4.1	M00001624A:G11	21920
961	2/24/98	206	RTA00000410F.b.15.1	M00001633C:F09	77100
962	2/24/98	207	RTA00000414F.b.08.1	M00005212C:H02	0
963	2/24/98	208	RTA00000419F.j.23.1	M00003871A:C11	74470
964	2/24/98	209	RTA00000411F.j.02.1	M00003841C:D07	65310
965	2/24/98	210	RTA00000419F.p.24.1	M00004039B:E12	63477
966	2/24/98	211	RTA00000404F.a.19.1	M00001590B:C07	38624
967	2/24/98	212	RTA00000408F.k.06.1	M00001485C:H10	78393
968	2/24/98	213	RTA00000123A.f.3.1	M00001531A:H07	44017
969	2/24/98	214	RTA00000404F.h.19.1	M00001619A:E05	8096
970	2/24/98	215	RTA00000403F.j.18.1	M00001539D:E10	5790
971	2/24/98	216	RTA00000420F.i.18.1	M00005101C:E09	0
972	2/24/98	217	RTA00000399F.o.17.1	M00001599D:A09	1106
973	2/24/98	218	RTA00000346F.e.13.1	M00001660B:D03	74653
974	2/24/98	219	RTA00000419F.c.18.1	M00003819D:B11	41394
975	2/24/98	220	RTA00000413F.k.02.1	M00004690A:G08	0
976	2/24/98	221	RTA00000414F.f.13.1	M00005259D:H08	0
977	2/24/98	222	RTA00000405F.e.09.1	M00001663C:F12	38978
978	2/24/98	223	RTA00000404F.e.22.1	M00001610A:H05	11344
979	2/24/98	224	RTA00000341F.g.21.1	M00003914C:F09	8823
980	2/24/98	225	RTA00000414F.d.07.1	M00005229D:H09	0
981	2/24/98	226	RTA00000125A.k.10.1	M00001545A:F02	81644
982	2/24/98	227	RTA00000347F.c.06.1	M00001444D:C01	18846
983	2/24/98	228	RTA00000411F.k.19.1	M00003852D:E08	64200
984	2/24/98	229	RTA00000345F.i.09.1	M00001450A:D08	27250
985	2/24/98	230	RTA00000423F.k.01.1	M00004034D:E09	40426
986	2/24/98	231	RTA00000408F.d.06.1	M00001458D:C11	78997 70761
987	2/24/98	232	RTA00000128A.b.20.1	M00001558A:G09	79761
988	2/24/98	233	RTA00000403F.i.08.1	M00001485C:B10	6176 22766
989	2/24/98	234	RTA00000195AF.d.4.1	M00003881D:D06	, 42/00

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
989	1/28/98	185	RTA00000195AF.d.4.1	M00003881D:D06	22766
990	2/24/98	235	RTA000001757ti .d.4.1 RTA00000126A.o.23.1	M00003081D:D00	6268
991	2/24/98	236	RTA00000403F.h.12.1	M0000133111:B10	15205
992	2/24/98	237	RTA00000119A.j.22.1	M00001460A:F07	80336
993	2/24/98	238	RTA00000340F.j.12.1	M000014007:107	3277
994	2/24/98	239	RTA00000346F.j.02.1	M0000702471:B00 M00003832B:E01	5294
995	2/24/98	240	RTA00000126A.n.7.2	M00003632B:E01	79557
996	2/24/98	241	RTA000001207.ii.7.2 RTA00000339F.d.13.1	M000013917A:D00	0
997	2/24/98	242	RTA00000404F.j.08.1	M00001575C:111	39066
998	2/24/98	243	RTA00000410F.c.14.1	M00001634A:H05	77809
999	2/24/98	244	RTA00000120A.g.23.1	M000010547:1105 M00001465A:E10	81189
1000	2/24/98	245	RTA00000125AF.d.20.1	M00004117A:D11	37574
1000	1/28/98	87	RTA00000195AF.d.20.1	M00004117A:D11	37574
1001	2/24/98	246	RTA00000173711.d.20.1	M00005218A:G05	0
1002	2/24/98	247	RTA00000412F.j.17.1	M0000321071:G03	64071
1002	2/24/98	248	RTA00000412F.J.17.11 RTA00000404F.k.24.1	M00003782C:G04 M00001636A:C03	15256
1003	2/24/98	249	RTA00000119A.j.10.1	M00001050A:C05	79646
1005	2/24/98	250	RTA00000410F.o.12.1	M00001400A:C10	77376
1005	2/24/98	251	RTA00000119A.i.9.1	M00001007A:G12	0
1007	2/24/98	252	RTA000001137.ii.3.11 RTA00000412F.g.24.1	M00003973C:C03	28741
1007	2/24/98	253	RTA00000412F.g.24.1 RTA00000400F.f.18.1	M00003973C:C03	3764
1009	2/24/98	254	RTA00000341F.I.15.1	M00001037A:E10	5294
1010	2/24/98	255	RTA000003411.1.13.11 RTA00000419F.o.16.1	M00003989C:G05	62867
1011	2/24/98	256	RTA00000417F.0.10.17	M00003707C:G03	11799
1012	2/24/98	257	RTA00000411F.c.17.1	M00001678D:G03	77664
1013	2/24/98	258	RTA000004111.6.17.1	M00003907C:C04	38549
1014	2/24/98	259	RTA00000406F.a.02.1	M00003367C:C04 M00003855C:F10	37744
1015	2/24/98	260	RTA00000414F.e.08.1	M00005236A:E04	0
1016	2/24/98	261	RTA00000341F.b.06.1	M00003290A:E07	17008
1017	2/24/98	262	RTA00000409F.n.14.1	M00003771R:E12	78190
1018	2/24/98	263	RTA00000410F.p.17.1	M00001624D:C00	47425
1019	2/24/98	264	RTA00000345F.j.08.1	M00001451B:A04	16731
1020	2/24/98	265	RTA00000340F.k.16.1	M00001647B:C09	13157
1021	2/24/98	266	RTA00000419F.g.15.1	M00003844D:A07	32519
1022	2/24/98	267	RTA00000423F.a.19.1	M00001676D:A02	21396
1023	2/24/98	268	RTA00000403F.e.23.1	M00001476A:D11	9626
1024	2/24/98	269	RTA00000422F.e.08.1	M00001573A:E01	39020
1025	2/24/98	270	RTA00000411F.d.15.1	M00001692A:B06	74890
1026	2/24/98	271	RTA00000414F.e.16.1	M00005236B:H10	0
1027	2/24/98	272	RTA00000411F.I.15.1	M00003857C:F11	66704
1028	2/24/98	273	RTA00000400F.a.11.1	M00001612B:D11	0
1029	2/24/98	274	RTA00000405F.e.08.1	M00001663C:F10	37916
1030	2/24/98	275	RTA00000353R.j.24.1	M00001428B:D01	23089
1031	2/24/98	276	RTA00000423F.a.18.1	M00001675A:G10	26761
1032	2/24/98	277	RTA00000418F.o.06.1	M00001660C:D11	75930
1033	2/24/98	278	RTA00000404F.c.10.1	M00001593B:E11	23534
1034	2/24/98	279	RTA00000418F.i.21.1	M00001596D:E10	78728
1035	2/24/98	280	RTA00000418F.p.15.1	M00001671C:C11	31066
1036	2/24/98	281	RTA00000411F.I.13.1	M00003857C:C09	43114
1037	2/24/98	282	RTA00000407F.a.24.1	M00004083A:E08	37560
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SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appin			
1038	2/24/98	283	RTA00000346F.n.06.1	M00004139C:A12	12439
1039	2/24/98	284	RTA00000412F.I.21.1	M00004029C:G10	65183
1040	2/24/98	285	RTA00000413F.i.02.1	M00004110D:A10	65857
1041	2/24/98	286	RTA00000404F.i.19.1	M00001625B:C10	38698
1042	2/24/98	287	RTA00000410F.n.09.1	M00001662C:A04	11736
1043	2/24/98	288	RTA00000403F.a.11.1	M00001448C:F10	73109
1044	2/24/98	-289	RTA00000420F.n.08.1	M00005257A:H11	0
1045	2/24/98	290	RTA00000411F.k.16.1	M00003852C:B06	64759
1046	2/24/98	291	RTA00000405F.c.01.1	M00001657D:A04	19236
1047	2/24/98	292	RTA00000423F.i.18.1	M00003918A:D08	14996
1048	2/24/98	293	RTA00000403F.l.04.1	M00001571C:A04	39278
1049	2/24/98	294	RTA00000405F.1.17.1	M00003805A:F02	17225
1050	2/24/98	295	RTA00000406F.a.07.1	M00003856C:H09	26607
1051	2/24/98	296	RTA00000347F.d.06.1	M00001457C:F02	39122
1052	2/24/98	297	RTA00000419F.b.18.1	M00003808D:D08	67034
1053	2/24/98	298	RTA00000406F.h.07.1	M00003901B:H04	38003
1054	2/24/98	299	RTA00000405F.I.15.1	M00001694A:E03	19575
1055	2/24/98	300	RTA00000406F.g.17.1	M00003881B:F10	37979
1056	2/24/98	301	RTA00000401F.m.23.1	M00003914C:C02	2801
1057	2/24/98	302	RTA00000356R.f.18.1	M00004692A:H10	0
1058	2/24/98	303	RTA00000130A.h.22.1	M00001617A:D06	80933
1059	2/24/98	304	RTA00000403F.n.18.2	M00001577D:H06	8811
1060	2/24/98	305	RTA00000418F.p.06.1	M00001664A:F08	32628
1061	2/24/98	306	RTA00000404F.d.13.1	M00001595D:A04	39036
1062	2/24/98	307	RTA00000420F.1.12.2	M00005230B:H09	0
1063	2/24/98	308	RTA00000353R.d.11.1	M00004692A:H08	0
1064	2/24/98	309	RTA00000340F.n.01.1	M00001679A:G06	39081
1065	2/24/98	310	RTA00000419F.d.06.1	M00003820B:D07	65496
1066	2/24/98	311	RTA00000419F.n.09.1	M00003977C:A06	66070
1067	2/24/98	312	RTA00000399F.i.08.1	M00001575D:B10	38927
1068	2/24/98	313	RTA00000406F.g.07.1	M00003880C:E11	37925
1069	2/24/98	314	RTA00000423F.g.13.1	M00003905A:E07	38028
1070	2/24/98	315	RTA00000419F.p.12.1	M00004037A:E04	13767
1071	2/24/98	316	RTA00000414F.a.02.1	M00005178D:H04	0
1072	2/24/98	317	RTA00000195AF.b.21.1	M00001595B:A09	39055
1072	1/28/98	602	RTA00000195AF.b.21.1	M00001595B:A09	39055
1073	2/24/98	318	RTA00000403F.h.05.1	M00001482D:A04	39096
1074	2/24/98	319	RTA00000420F.b.21.1	M00004088D:B10	65057
1075	2/24/98	320	RTA00000422F.p.07.2	M00001661A:E06	39024
1076	2/24/98	321	RTA00000339F.c.21.1	M00001389C:A08	5325
1077	2/24/98	322	RTA00000339F.c.24.1	M00001364B:B06	5516
1078	2/24/98	323	RTA00000421F.n.19.1	M00001679A:D10	16409
1079	2/24/98	324	RTA00000340F.p.17.1	M00003750C:H05	0
1080	2/24/98	325	RTA00000345F.k.21.1	M00001464B:C11	40204
1081	2/24/98	326	RTA00000419F.b.15.1	M00003806D:D11	43969
1082	2/24/98	327	RTA00000405F.a.11.1	M00001655A:B11	39124
1083	2/24/98	328	RTA00000423F.k.19,2	M00003985D:E10	17615
1084	2/24/98	329	RTA00000413F.e.16.1	M00004093C:C02	63836
1085	2/24/98	330	RTA00000403F.i.04.1	M00001485B:D09	8930
1086	2/24/98	331	RTA00000404F.o.18.2	M00001651C:C05	39110
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SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
1087	2/24/98	332	RTA00000409F.i.24.1	M00001611B:A09	76967
1088	2/24/98	333	RTA00000399F.f.11.1	M00001487C:F01	40167
1089	2/24/98	334	RTA00000408F.p.05.1	M00001575B:B02	9649
1090	2/24/98	335	RTA00000413F.d.02.1	M00004087B:A12	66172
1091	2/24/98	336	RTA00000340F.n.13.1	M00001688D:B10	17055
1092	2/24/98	337	RTA00000340F.p.04.1	M00001679D:B02	78533
1093	2/24/98	338	RTA00000411F.c.05.1	M00001677B:H06	73368
1094	2/24/98	339	RTA00000403F.g.10.1	M00001481A:G06	20211
1095	2/24/98	340	RTA00000408F.I.13.1	M00001530A:B12	4423
1096	2/24/98	341	RTA00000412F.g.20.2	M00003972C:F08	25018
1097	2/24/98	342	RTA00000404F.i.02.1	M00001619D:D10	39015
1098	2/24/98	343	RTA00000422F.g.21.1	M00001583A:F07	17232
1099	2/24/98	344	RTA00000403F.m.15.2	M00001575D:D12	26901
1100	2/24/98	345	RTA00000412F.h.23.2	M00003974D:H04	65118
1101	2/24/98	346	RTA00000418F.j.08.1	M00001626C:C11	73382
1102	2/24/98	347	RTA00000125A.n.4.1	M00001546A:D08	81984
1103	2/24/98	348	RTA00000412F.l.19.1	M00004029C;C05	65825
1104	2/24/98	349	RTA00000404F.m.10.2	M00001641D:E02	779
1105	2/24/98	350	RTA00000129A.p.3.1	M00001604A:B08	32644
1106	2/24/98	351	RTA00000340F.p.20.1	M00003752B:C02	17008
1107	2/24/98	352	RTA00000411F.a.10.1	M00001675C:G01	73073
1108	2/24/98	353	RTA00000409F.n.17.1	M00001621C:C10	76725
1109	2/24/98	354	RTA00000404F.c.03.2	M00001592C:F11	39198
1110	2/24/98	355	RTA00000420F.a.19.1	M00004076A:D12	34192
1111	2/24/98	356	RTA00000409F.m.24.1	M00001620D:H02	3942
1112	2/24/98	357	RTA00000406F.n.16.1	M00003972A:G09	5660
1113	2/24/98	358	RTA00000414F.e.06.1	M00005235A:A03	0
1114	2/24/98	359	RTA00000420F.d.12.1	M00004096D:H03	64095
1115	2/24/98	360	RTA00000409F.j.19.1	M00001613A:F03	73792
1116	2/24/98	361	RTA00000422F.d.16.1	M00001570C:G03	39133
1117	2/24/98	362	RTA00000418F.m.16.1	M00001653B:E06	74986
1118	2/24/98	363	RTA00000405F.c.11.1	M00001659A:D12	39068
1119	2/24/98	364	RTA00000404F.k.22.1	M00001635D:C12	39084
1120	2/24/98	365	RTA00000418F.k.07.1	M00001637A:F10	75067
1121	2/24/98	366	RTA00000403F.c.10.1	M00001456D:F05	75261
1122	2/24/98	367	RTA00000401F.o.06.1	M00004029C:C12	2679
1123	2/24/98	368	RTA00000346F.o.08.1	M00004149C:B02	0
1124	2/24/98	369	RTA00000410F.m.05.1	M00001657B:B04	74964
1125	2/24/98	370	RTA00000405F.i.20.1	M00001677A:G11	38532
1126	2/24/98	371	RTA00000403F.j.17.1	M00001539D:B10	38563
1127	2/24/98	372	RTA00000408F.p.24.1	M00001579A:E03	74286
1128	2/24/98	373	RTA00000418F.k.18.1	M00001639C:A10	75385
1129	2/24/98	374	RTA00000422F.m.04.1	M00001615B:A09	38702
1130	2/24/98	375	RTA00000405F.g.16.2	M00001672D:D04	9021
1131	2/24/98	376	RTA00000400F.k.22.1	M00001656A:B07	2512
1132	2/24/98	377	RTA00000346F.i.01.1	M00003797A:D06	22260
1133	2/24/98	378	RTA00000403F.a.07.1	M00001448B:F09	73559
1134	2/24/98	379	RTA00000349R.j.07.1	M00001529B:C04	2642
1135	2/24/98	380	RTA00000403F.b.19.1	M00001456B:A06	22327
1136	2/24/98	381	RTA00000418F.m.23.1	M00001654D:F11	77195
			157		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appin	Appln			
1137	2/24/98	382	RTA00000341F.h.10.1	M00003901B:G11	0
1138	2/24/98	383	RTA00000404F.i.18.1	M00001621C:H12	21912
1139	2/24/98	384	RTA00000422F.i.14.1	M00001487A:F10	39300
1140	2/24/98	385	RTA00000418F.m.14.1	M00001651B:E06	75711
1141	2/24/98	386	RTA00000406F.o.12.1	M00003986D:D02	37459
1142	2/24/98	387	RTA00000411F.a.15.1	M00001675D:B08	73812
1143	2/24/98	388	RTA00000411F.a.07.1	M00001675C:C03	74547
1144	2/24/98	389	RTA00000411F.c.02.1	M00001677B:B04	72852
1145	2/24/98	390	RTA00000355R.a.14.1	M00004187D:G09	10207
1146	2/24/98	391	RTA00000130A.h.16.1	M00001617A:A08	80761
1147	2/24/98	392	RTA00000410F.p.23.1	M00001675B:C01	73948
1148	2/24/98	393	RTA00000418F.m.24.1	M00001654D:F12	77114
1149	2/24/98	394	RTA00000420F.m.02.1	M00005233A:G08	0
1150	2/24/98	395	RTA00000408F.j.19.2	M00001485C:C08	73752
1151	2/24/98	396	RTA00000406F.e.21.1	M00003877D:G05	9090
1152	2/24/98	397	RTA00000118A.d.17.1	M00001416A:D09	81921
1153	2/24/98	398	RTA00000407F.b.04.1	M00004086D:B09	63221
1154	2/24/98	399	RTA00000411F.e.07.1	M00003810C:A03	65008
1155	2/24/98	400	RTA00000403F.f.08.1	M00001477A:G07	19107
1156	2/24/98	401	RTA00000132A.c.11.1	M00001454A:G03	87278
1157	2/24/98	402	RTA00000420F.e.16.1	M00004110A:E04	63639
1158	2/24/98	403	RTA00000403F.d.22.1	M00001473A:A07	10692
1159	2/24/98	404	RTA00000404F.b.11.1	M00001591D:F06	39079
1160	2/24/98	405	RTA00000418F.k.17.1	M00001639C:A09	75390
1161	2/24/98	406	RTA00000129A.k.12.1	M00001601A:A06	79322
1162	2/24/98	407	RTA00000340R.m.07.1	M00001679D:F02	78415
1163	2/24/98	408	RTA00000405F.d.14.1	M00001662A:C12	35209
1164	2/24/98	409	RTA00000406F.f.11.1	M00003879A:B08	38601
1165	2/24/98	410	RTA00000120A.h.5.1	M00001465A:G06	80344
1166	2/24/98	411	RTA00000420F.m.12.1	M00005234D:B04	0
1167	2/24/98	412	RTA00000411F.g.06.1	M00003822D:C06	66065
1168	2/24/98	413	RTA00000408F.d.16.1	M00001459B:D03	76318
1169	2/24/98	414	RTA00000120A.p.18.1	M00001468A:C05	6478
1170	2/24/98	415	RTA00000340R.f.05.1	M00001569B:G11	3202
1171	2/24/98	416	RTA00000404F.c.19.1	M00001594A:D06	39026
1172	2/24/98	417	RTA00000423F.I.02.1	M00003978C:A03	5639
1173	2/24/98	418	RTA00000410F.a.01.1	M00001631D:B10	73354
1174	2/24/98	419	RTA00000408F.h.08.1	M00001480A:D03	74575
1175	2/24/98	420	RTA00000422F.b.16.1	M00003813B:A11	17045
1176	2/24/98	421	RTA00000419F.f.10.1	M00003835D:G06	66193
1177	2/24/98	422	RTA00000418F.J.04.1	M00001641C:D02	74140
1178	2/24/98	423	RTA00000410F.a.16.1	M00001633A:E06	73548
1179	2/24/98	424	RTA00000138A.e.13.1	M00001605A:E06	79608 79579
1180	2/24/98	425	RTA00000130A.b.5.1	M00001605A:E09 M00001485B:F05	74759
1181	2/24/98	426	RTA00000410F = 20.1		
1182	2/24/98	427	RTA00000410F.m.20.1	M00001660B:E03 M00001478B:D07	74285 2036
1183	2/24/98	428	RTA00000422F.f.14.1	M00001478B:D07 M00004099D:F01	1360
1184	2/24/98	429	RTA00000422F.c.17.1	M00004099D:F01	62963
1185	2/24/98	430	RTA00000419F.e.04.1	M00003837C:G03	1261
1186	2/24/98	431	RTA00000399F.j.15.1	141000012700.000	1201

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
1107	Appln	Appin	D.T		
1187	2/24/98	432	RTA00000418F.g.05.1	M00001579C:H06	73075
1188	2/24/98	433	RTA00000419F.n.02.1	M00003958B:H08	65963
1189	2/24/98	434	RTA00000348R.b.16.1	M00001347B:H04	6510
1190	2/24/98	435	RTA00000340F.b.02.1	M00001503C:G05	10185
1191	2/24/98	436	RTA00000119A.m.15.1	M00001461A:E05	80989
1192	2/24/98	437	RTA00000403F.m.20.2	M00001576A:F11	707
1193	2/24/98	438	RTA00000195R.d.09.1	M00003981C:B04	8537
1194	2/24/98	439	RTA00000413F.g.23.1	M00004103B:E09	40700
1195	2/24/98	440	RTA00000403F.a.18.1	M00001448D:F12	75726
1196	2/24/98	441	RTA00000404F.m.20.2	M00001647A:H08	39144
1197	2/24/98	442	RTA00000347F.b.02.1	M00001450A:A02	39304
1198	2/24/98	443	RTA00000414F.f.15.1	M00005260A:A12	0
1199	2/24/98	444	RTA00000419F.h.04.1	M00003846A:D03	65034
1200	2/24/98	445	RTA00000408F.d.12.1	M00001459B:A12	75782
1201	2/24/98	446	RTA00000133A.m.19.2	M00001512A:G05	80167
1202	2/24/98	447	RTA00000423F.b.04.3	M00001675D:E10	6311
1203	2/24/98	448	RTA00000127A.a.3.1	M00001552A:H10	13232
1204	2/24/98	449	RTA00000411F.j.16.1	M00003843A:E08	17237
1205	2/24/98	450	RTA00000118A.a.23.1	M00001395A:H02	3500
1206	2/24/98	451	RTA00000126A.o.22.1	M00001551A:A11	81752
1207	2/24/98	452	RTA00000419F.n.13.1	M00003977D:A06	66026
1208	2/24/98	453	RTA00000130A.h.13.1	M00001617A:A01	80790
1209	2/24/98	454	RTA00000418F.n.19.1	M00001659C:F02	28761
1210	2/24/98	455	RTA00000399F.d.23.1	M00001481B:A07	3310
1211	2/24/98	456	RTA00000413F.o.06.1	M00005100A:B02	0
1212	2/24/98	457	RTA00000411F.m.19.1	M00003868D:D11	74924
1213 1214	2/24/98	458	RTA00000130A.a.19.1	M00001605A:A06	0
1214	2/24/98 2/24/98	459 460	RTA00000419F.k.06.1	M00003871D:A10	78493
1215	2/24/98	460 461	RTA00000341F.j.12.1 RTA00000412F.d.16.1	M00003987C:G03	12195
1217	2/24/98	462		M00003906B:H06	26829
1217	2/24/98	463	RTA00000119A.j.23.1	M00001460A:G07	79835
1219	2/24/98	464	RTA00000403F.o.22.1 RTA00000195AF.c.12.1	M00001583A:D01 M00003818B:G12	25076
1219	1/28/98	300	RTA00000195AF.c.12.1	M00003818B:G12	37582 37582
1220	2/24/98	465	RTA00000193A1.c.12.1	M00003818B:G12	11460
1221	2/24/98	466	RTA00000330K.p.18.1 RTA00000406F.i.24.1	M00001070B.F03	12767
1222	2/24/98	467	RTA00000123A.n.13.2	M00003904D:B12 M00001534A:D03	39167
1223	2/24/98	468	RTA00000423F.c.19.1	M00001534A:D03	40472
1224	2/24/98	469	RTA00000425F.g.24.1	M00001673D:D06	39076
1225	2/24/98	470	RTA00000411F.j.06.1	M00001873D:B00	63545
1226	2/24/98	471	RTA00000419F.c.11.1	M00003847E:H08	65504
1227	2/24/98	472	RTA00000135A.f.14.2	M00003617B:C04	79969
1228	2/24/98	473	RTA00000403F.a.05.1	M00001342A:E11	18808
1229	2/24/98	474	RTA00000405F.e.17.1	M00001440/A:E11	38662
1230	2/24/98	475	RTA00000411F.d.05.1	M00001681C:A08	75812
1231	2/24/98	476	RTA00000345F.h.01.1	M00001441B:D11	10834
1232	2/24/98	477	RTA00000418F.d.03.1	M00001567B:G11	76824
1233	2/24/98	478	RTA00000418F.h.08.1	M00001589B:E07	76401
1234	2/24/98	479	RTA00000418F.m.10.1	M00001651A:H11	79110
1235	2/24/98	480	RTA00000411F.i.15.1	M00003837C:G08	31612

Appln	SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
1237   2/24/98   482			• •	DW . 00000 (10E : 00 1	M00004110D D01	(2000
1238   2/24/98   484						
1239   2/24/98   484						
1240				_		
1241   2/24/98   486						
1242   2/24/98		_				
1243   2/24/98   488						
1244   2/24/98   489				~		
1245   2/24/98   490						=
1246   2/24/98   491				5		
1247   2/24/98   492						
1248   2/24/98   493   RTA00000129A.d.1.2   M00001587A:F05   80058   1249   2/24/98   494   RTA00000419F.k.12.1   M00003876C:F02   0						
1249   2/24/98   494   RTA00000419F.k.12.1   M00003876C:F02   0   1250   2/24/98   495   RTA00000400F.c.21.1   M00001669C:C08   16259   16251   2/24/98   496   RTA00000419F.m.20.1   M00003914A:B07   76720   1252   2/24/98   497   RTA00000350R.f.21.1   M00003914A:B07   76720   1253   2/24/98   498   RTA00000406F.c.15.1   M00003877C:A11   39074   1254   2/24/98   500   RTA00000116A.p.18.2   M00001552A:E10   80881   1255   2/24/98   501   RTA0000041F.c.10.1   M00001678D:B11   73117   73117   1254   2/24/98   502   RTA0000041F.c.10.1   M00001678D:B11   73117   73125   2/24/98   502   RTA0000041F.d.08.1   M00005257D:H11   0   1257   2/24/98   503   RTA0000041F.d.08.1   M00005257D:H11   0   1258   2/24/98   504   RTA00000413F.d.05.1   M00004087C:A01   64788   1260   2/24/98   505   RTA00000412F.d.05.1   M00004087C:A01   64788   1260   2/24/98   505   RTA00000412F.c.02.1   M00001511A:A02   81437   1261   2/24/98   506   RTA00000420F.c.02.1   M00001477B:C02   0   1262   2/24/98   508   RTA00000420F.c.02.1   M00001407B:D07   40259   1263   2/24/98   508   RTA00000420F.c.02.1   M00001407B:D07   40259   1264   2/24/98   508   RTA00000349R.g.10.1   M00001495B:B08   5777   1265   2/24/98   510   RTA00000349R.g.10.1   M00001495B:B08   5777   1266   2/24/98   510   RTA00000131A.g.16.2   M00001495B:B08   5777   1266   2/24/98   512   RTA00000144F.c.16.1   M00005228A:B03   0   1268   2/24/98   513   RTA00000144F.c.16.1   M00003879A:D02   79866   1269   2/24/98   514   RTA0000044F.c.13.1   M0000168D:E09   12046   1270   2/24/98   515   RTA00000419F.in3.1   M00001608D:E09   12046   1270   2/24/98   516   RTA00000419F.in3.1   M00001399A:C03   6494   1272   2/24/98   518   RTA00000419F.in3.1   M00001399A:C03   6494   1272   2/24/98   520   RTA00000419F.in3.1   M00001399A:C03   6494   1272   2/24/98   521   RTA00000419F.in3.1   M00001399A:C03   6494   1274   2/24/98   522   RTA00000419F.in3.1   M00001608D:E09   12046   1274/98   522   RTA00000419F.in3.1   M00001608D:E01   1368   1274/98   523   RTA00000419F.in3.1   M000001655C:E01						
1250   2/24/98   495   RTA00000400F.o.21.1   M00001669C:C08   16259   1251   2/24/98   496   RTA00000419F.m.20.1   M00003914A:B07   76720   1252   2/24/98   497   RTA00000350R.f.21.1   M00003610C:E07   22110   1253   2/24/98   498   RTA0000016A.p.18.2   M00001552A:E10   80881   1255   2/24/98   499   RTA00000126A.p.18.2   M00001552A:E10   80881   1255   2/24/98   500   RTA00000411F.c.10.1   M00001678D:B11   73117   1256   2/24/98   501   RTA00000414F.f.05.1   M00005257D:H11   0   1257   2/24/98   502   RTA0000041F.d.08.1   M00005257D:H11   0   1258   2/24/98   503   RTA00000420F.m.08.1   M00005257D:H11   0   1259   2/24/98   503   RTA00000420F.m.08.1   M00005233B:D04   0   1259   2/24/98   504   RTA00000413F.d.05.1   M0000487C:A01   64788   1260   2/24/98   505   RTA00000420F.e.02.1   M00001477B:C02   0   1262   2/24/98   506   RTA00000420F.e.02.1   M00001477B:D07   40259   1263   2/24/98   508   RTA00000420F.e.02.1   M00001477B:D07   40259   1264   2/24/98   508   RTA00000420F.e.02.1   M000014095B:B08   5777   1266   2/24/98   510   RTA00000341F.b.13.1   M00001526B:B08   5777   1266   2/24/98   511   RTA00000341F.b.13.1   M00001550A:E07   79866   1269   2/24/98   513   RTA0000041F.e.13.1   M00001550A:E07   79866   1269   2/24/98   514   RTA0000044F.e.13.1   M00001550A:E07   79866   1270   2/24/98   515   RTA00000414F.e.13.1   M0000150A:E07   79866   1271   2/24/98   516   RTA00000419F.I.03.1   M0000159A:A12   38067   1272   2/24/98   517   RTA00000118A.a.2.1   M00001399A:C03   6494   1272   2/24/98   518   RTA0000040F.e.13.1   M00001608D:E09   12046   1274   2/24/98   518   RTA00000419F.m.18.1   M00001608D:E09   12046   1274   2/24/98   518   RTA00000419F.m.18.1   M00001608D:E09   12046   1274   2/24/98   518   RTA00000419F.m.18.1   M00001608D:E09   12046   1274   2/24/98   518   RTA00000406F.e.20.1   M00001395A:A12   38067   1274   2/24/98   528   RTA00000406F.e.20.1   M00001608D:E01   23136   1274   2/24/98   528   RTA00000406F.e.18.1   M000016075B:H03   76699   1282   2/24/98   528   RTA00000406F.e.18.1				•		
1251   2/24/98   496						
1252   2/24/98   497						
1253   2/24/98   498						
1254   2/24/98   499						
1255   2/24/98   500						
1256   2/24/98   501   RTA00000414F.f.05.1   M00005257D:H11   0     1257   2/24/98   502   RTA00000341F.d.08.1   M00003824C:D07   0     1258   2/24/98   503   RTA00000420F.m.08.1   M00005233B:D04   0     1259   2/24/98   504   RTA00000413F.d.05.1   M000004087C:A01   64788     1260   2/24/98   505   RTA00000413F.d.05.1   M00001511A:A02   81437     1261   2/24/98   506   RTA0000043F.f.09.1   M00001477B:C02   0     1262   2/24/98   507   RTA00000420F.e.02.1   M00001407B:D07   40259     1263   2/24/98   509   RTA00000349R.g.10.1   M00001497B:B08   5777     1264   2/24/98   509   RTA00000349R.g.10.1   M00001495B:B08   5777     1265   2/24/98   510   RTA00000341F.b.13.1   M00001495B:B08   5777     1266   2/24/98   511   RTA00000341F.b.13.1   M00003762B:H09   0     1267   2/24/98   512   RTA00000414F.c.16.1   M00005228A:B03   0     1268   2/24/98   513   RTA00000414F.c.16.1   M00005228A:B03   0     1269   2/24/98   514   RTA00000419F.l.03.1   M00001550A:E07   79866     1269   2/24/98   515   RTA00000419F.l.03.1   M00001399A:C03   6494     1270   2/24/98   516   RTA00000339F.f.20.1   M00001399A:C03   6494     1271   2/24/98   516   RTA00000419F.m.18.1   M00001399A:C03   6494     1272   2/24/98   518   RTA00000419F.m.18.1   M00001399A:C03   6494     1273   2/24/98   518   RTA00000419F.m.18.1   M00001638B:F10   23136     1274   2/24/98   520   RTA00000419F.m.18.1   M00001638B:F10   23136     1275   2/24/98   520   RTA00000419F.m.18.1   M00001638B:F10   23136     1276   2/24/98   521   RTA00000419F.m.18.1   M00001638B:F10   23136     1277   2/24/98   522   RTA00000419F.d.23.1   M00003871C:F12   14368     1278   2/24/98   523   RTA00000419F.f.23.1   M00003871C:F12   14368     1280   2/24/98   524   RTA00000419F.m.21.1   M00001349B:G05   5774     1281   2/24/98   526   RTA00000419F.m.21.1   M00001349B:G05   5774     1281   2/24/98   528   RTA00000419F.m.21.1   M00001349B:G05   5774     1283   2/24/98   529   RTA00000419F.m.21.1   M00001655C:E01   13084     1284   2/24/98   529   RTA00000419F.m.21.1   M00001655C:E01   1308				•		
1257         2/24/98         502         RTA00000341F.d.08.1         M00003824C:D07         0           1258         2/24/98         503         RTA00000420F.m.08.1         M00005233B:D04         0           1259         2/24/98         504         RTA00000413F.d.05.1         M00004087C:A01         64788           1260         2/24/98         505         RTA00000121A.o.3.1         M00001511A:A02         81437           1261         2/24/98         506         RTA00000420F.e.02.1         M00001477B:D07         40259           1262         2/24/98         507         RTA00000420F.e.02.1         M000001477B:D07         40259           1263         2/24/98         508         RTA00000349R.g.10.1         M00005101C:E12         0           1264         2/24/98         509         RTA00000349R.g.10.1         M00001449A:F01         0           1265         2/24/98         510         RTA00000434F.e.13.1         M00001449A:F01         0           1266         2/24/98         511         RTA00000414F.c.16.1         M00001550A:E07         79866           1267         2/24/98         512         RTA00000414F.c.13.1         M00001550A:E07         79866           1269         2/24/98         515         RTA000						
1258         2/24/98         503         RTA00000420F.m.08.1         M00005233B:D04         0           1259         2/24/98         504         RTA00000413F.d.05.1         M00004087C:A01         64788           1260         2/24/98         505         RTA000000413F.d.05.1         M00001511A:A02         81437           1261         2/24/98         506         RTA00000420F.e.02.1         M00001477B:C02         0           1262         2/24/98         507         RTA00000420F.e.02.1         M00001407B:D07         40259           1263         2/24/98         508         RTA00000420F.i.20.1         M00005101C:E12         0           1264         2/24/98         509         RTA00000349R.g.10.1         M00001495B:B08         5777           1265         2/24/98         510         RTA00000341F.b.13.1         M000014949A:F01         0           1266         2/24/98         512         RTA00000414F.c.16.1         M00003762B:H09         0           1267         2/24/98         513         RTA00000044F.c.13.1         M00001550A:E07         79866           1269         2/24/98         514         RTA0000044F.c.13.1         M00001608D:E09         12046           1270         2/24/98         515         RTA000						
1259         2/24/98         504         RTA00000413F.d.05.1         M00004087C:A01         64788           1260         2/24/98         505         RTA00000121A.o.3.1         M00001511A:A02         81437           1261         2/24/98         506         RTA00000420F.e.02.1         M00001477B:C02         0           1262         2/24/98         507         RTA00000420F.e.02.1         M00005101C:E12         0           1263         2/24/98         508         RTA00000349R.g.10.1         M0000110:E12         0           1264         2/24/98         509         RTA00000349R.g.10.1         M00001495B:B08         5777           1265         2/24/98         510         RTA00000341F.b.13.1         M00001495B:B08         5777           1266         2/24/98         511         RTA00000341F.b.13.1         M00001495B:B08         5777           1267         2/24/98         512         RTA00000341F.b.13.1         M00003762B:H09         0           1268         2/24/98         513         RTA00000414F.c.16.1         M00001550A:E07         79866           1269         2/24/98         514         RTA0000044F.e.13.1         M00001608D:E09         12046           1270         2/24/98         515         RTA000000						
1260         2/24/98         505         RTA00000121A.o.3.1         M00001511A:A02         81437           1261         2/24/98         506         RTA00000403F.f.09.1         M00001477B:C02         0           1262         2/24/98         507         RTA00000420F.e.02.1         M00004107B:D07         40259           1263         2/24/98         508         RTA00000420F.i.20.1         M00005101C:E12         0           1264         2/24/98         509         RTA00000349R.g.10.1         M00001495B:B08         5777           1265         2/24/98         510         RTA00000341F.b.13.1         M00003762B:H09         0           1266         2/24/98         511         RTA00000341F.b.13.1         M00003762B:H09         0           1267         2/24/98         512         RTA00000414F.c.16.1         M00005228A:B03         0           1268         2/24/98         513         RTA00000414F.c.13.1         M00001550A:E07         79866           1270         2/24/98         515         RTA00000419F.l.03.1         M00001550A:E07         79866           1271         2/24/98         515         RTA00000419F.l.03.1         M00001399A:C03         6494           1272         2/24/98         518         RTA000004						
1261         2/24/98         506         RTA00000403F.f.09.1         M00001477B:C02         0           1262         2/24/98         507         RTA00000420F.e.02.1         M00004107B:D07         40259           1263         2/24/98         508         RTA00000420F.i.20.1         M00005101C:E12         0           1264         2/24/98         509         RTA00000349R.g.10.1         M00001495B:B08         5777           1265         2/24/98         510         RTA00000341F.b.13.1         M00003762B:H09         0           1266         2/24/98         511         RTA00000341F.b.13.1         M00003762B:H09         0           1267         2/24/98         512         RTA00000414F.c.16.1         M00001550A:E07         79866           1268         2/24/98         513         RTA00000444F.e.13.1         M00001508D:E09         12046           1270         2/24/98         515         RTA00000444F.e.13.1         M00001389A:C03         6494           1271         2/24/98         515         RTA00000449F.i.03.1         M00001399A:C03         6494           1272         2/24/98         516         RTA00000418A.a.2.1         M00001395A:A12         38067           1273         2/24/98         518         RTA000						
1262         2/24/98         507         RTA00000420F.e.02.1         M00004107B:D07         40259           1263         2/24/98         508         RTA00000420F.i.20.1         M00005101C:E12         0           1264         2/24/98         509         RTA00000349R.g.10.1         M00001495B:B08         5777           1265         2/24/98         510         RTA00000341F.b.13.1         M00001449A:F01         0           1266         2/24/98         511         RTA00000341F.b.13.1         M00003762B:H09         0           1267         2/24/98         512         RTA00000414F.c.16.1         M00005228A:B03         0           1268         2/24/98         513         RTA00000126A.k.7.2         M00001550A:E07         79866           1269         2/24/98         514         RTA00000419F.i.03.1         M0000188D:E09         12046           1270         2/24/98         515         RTA00000419F.i.03.1         M00003879A:D02         79060           1271         2/24/98         516         RTA00000339F.f.20.1         M00001399A:C03         6494           1272         2/24/98         517         RTA00000418A.a.2.1         M00001399A:C03         6494           1272         2/24/98         518         RTA00000						
1263         2/24/98         508         RTA00000420F.i.20.1         M00005101C:E12         0           1264         2/24/98         509         RTA00000349R.g.10.1         M00001495B:B08         5777           1265         2/24/98         510         RTA00000131A.g.16.2         M00001449A:F01         0           1266         2/24/98         511         RTA00000341F.b.13.1         M00003762B:H09         0           1267         2/24/98         512         RTA00000414F.c.16.1         M00005228A:B03         0           1268         2/24/98         513         RTA00000126A.k.7.2         M00001550A:E07         79866           1269         2/24/98         514         RTA00000404F.e.13.1         M00001608D:E09         12046           1270         2/24/98         515         RTA00000419F.I.03.1         M000013879A:D02         79060           1271         2/24/98         516         RTA00000339F.f.20.1         M00001399A:C03         6494           1272         2/24/98         518         RTA000000418F.a.2.1         M00001395A:A12         38067           1273         2/24/98         518         RTA00000440F.m.18.1         M00001668B:F10         23136           1274         2/24/98         520         RTA0						
1264         2/24/98         509         RTA00000349R.g.10.1         M00001495B:B08         5777           1265         2/24/98         510         RTA00000131A.g.16.2         M00001449A:F01         0           1266         2/24/98         511         RTA00000341F.b.13.1         M00003762B:H09         0           1267         2/24/98         512         RTA00000414F.c.16.1         M00005228A:B03         0           1268         2/24/98         513         RTA00000126A.k.7.2         M00001550A:E07         79866           1269         2/24/98         514         RTA00000404F.e.13.1         M00001608D:E09         12046           1270         2/24/98         515         RTA00000419F.I.03.1         M00003879A:D02         79060           1271         2/24/98         516         RTA00000339F.f.20.1         M00001399A:C03         6494           1272         2/24/98         517         RTA00000118A.a.2.1         M00001395A:A12         38067           1273         2/24/98         518         RTA00000410F.m.18.1         M00001638B:F10         23136           1275         2/24/98         520         RTA00000410F.c.20.1         M00003871D:G06         38578           1276         2/24/98         521         RT						
1265         2/24/98         510         RTA00000131A.g.16.2         M00001449A:F01         0           1266         2/24/98         511         RTA00000341F.b.13.1         M00003762B:H09         0           1267         2/24/98         512         RTA00000414F.c.16.1         M00005228A:B03         0           1268         2/24/98         513         RTA00000126A.k.7.2         M00001550A:E07         79866           1269         2/24/98         514         RTA00000404F.e.13.1         M00001608D:E09         12046           1270         2/24/98         515         RTA00000419F.l.03.1         M00001399A:C03         6494           1271         2/24/98         516         RTA00000339F.f.20.1         M00001399A:C03         6494           1272         2/24/98         517         RTA00000118A.a.2.1         M00001399A:C03         6494           1272         2/24/98         518         RTA00000410F.m.18.1         M00001660B:A09         76365           1274         2/24/98         519         RTA00000404F.c.20.1         M00001638B:F10         23136           1275         2/24/98         520         RTA00000413F.b.14.1         M00003871C:F12         14368           1278         2/24/98         522         RTA						
1266         2/24/98         511         RTA00000341F.b.13.1         M00003762B:H09         0           1267         2/24/98         512         RTA00000414F.c.16.1         M00005228A:B03         0           1268         2/24/98         513         RTA00000126A.k.7.2         M00001550A:E07         79866           1269         2/24/98         514         RTA00000404F.e.13.1         M00001608D:E09         12046           1270         2/24/98         515         RTA00000419F.l.03.1         M00001399A:D02         79060           1271         2/24/98         516         RTA00000339F.f.20.1         M00001399A:C03         6494           1272         2/24/98         517         RTA00000118A.a.2.1         M00001395A:A12         38067           1273         2/24/98         518         RTA00000410F.m.18.1         M00001660B:A09         76365           1274         2/24/98         519         RTA0000040F.c.20.1         M00001638B:F10         23136           1275         2/24/98         520         RTA0000040F.c.20.1         M00003871D:G06         38578           1276         2/24/98         521         RTA00000413F.b.14.1         M000003871C:F12         14368           1278         2/24/98         522 <t< td=""><td></td><td></td><td></td><td>_</td><td></td><td></td></t<>				_		
1267         2/24/98         512         RTA00000414F.c.16.1         M00005228A:B03         0           1268         2/24/98         513         RTA00000126A.k.7.2         M00001550A:E07         79866           1269         2/24/98         514         RTA00000404F.e.13.1         M00001608D:E09         12046           1270         2/24/98         515         RTA00000419F.l.03.1         M000013879A:D02         79060           1271         2/24/98         516         RTA00000339F.f.20.1         M00001399A:C03         6494           1272         2/24/98         517         RTA00000118A.a.2.1         M00001395A:A12         38067           1273         2/24/98         518         RTA00000410F.m.18.1         M00001660B:A09         76365           1274         2/24/98         519         RTA00000040F.m.18.1         M00001638B:F10         23136           1275         2/24/98         520         RTA00000040F.c.20.1         M00003871D:G06         38578           1276         2/24/98         521         RTA00000413F.b.14.1         M00003871C:F12         14368           1278         2/24/98         523         RTA00000418F.j.09.1         M00001626C:D12         76352           1280         2/24/98         524				_		
1268         2/24/98         513         RTA00000126A.k.7.2         M00001550A:E07         79866           1269         2/24/98         514         RTA00000404F.e.13.1         M00001608D:E09         12046           1270         2/24/98         515         RTA00000419F.l.03.1         M00001399A:D02         79060           1271         2/24/98         516         RTA00000339F.f.20.1         M00001399A:C03         6494           1272         2/24/98         517         RTA00000118A.a.2.1         M00001395A:A12         38067           1273         2/24/98         518         RTA00000410F.m.18.1         M00001660B:A09         76365           1274         2/24/98         519         RTA0000040F.c.20.1         M00001638B:F10         23136           1275         2/24/98         520         RTA0000040F.c.20.1         M00003871D:G06         38578           1276         2/24/98         521         RTA00000413F.b.14.1         M00003871C:F12         14368           1278         2/24/98         522         RTA00000418F.j.09.1         M00001626C:D12         76352           1279         2/24/98         524         RTA00000419F.f.23.1         M00001349B:G05         5774           1281         2/24/98         526						
1269         2/24/98         514         RTA00000404F.e.13.1         M00001608D:E09         12046           1270         2/24/98         515         RTA00000419F.I.03.1         M00003879A:D02         79060           1271         2/24/98         516         RTA00000339F.f.20.1         M00001399A:C03         6494           1272         2/24/98         517         RTA00000118A.a.2.1         M00001395A:A12         38067           1273         2/24/98         518         RTA00000410F.m.18.1         M00001660B:A09         76365           1274         2/24/98         519         RTA00000404F.i.10.1         M00001638B:F10         23136           1275         2/24/98         520         RTA00000406F.c.20.1         M00003871D:G06         38578           1276         2/24/98         521         RTA00000413F.b.14.1         M00003871C:F12         14368           1277         2/24/98         522         RTA00000418F.j.09.1         M00003871C:F12         14368           1279         2/24/98         523         RTA00000418F.j.09.1         M00001626C:D12         76352           1280         2/24/98         525         RTA00000419F.f.23.1         M00001349B:G05         5774           1281         2/24/98         526						
1270         2/24/98         515         RTA00000419F.I.03.1         M00003879A:D02         79060           1271         2/24/98         516         RTA00000339F.f.20.1         M00001399A:C03         6494           1272         2/24/98         517         RTA00000118A.a.2.1         M00001395A:A12         38067           1273         2/24/98         518         RTA00000410F.m.18.1         M00001660B:A09         76365           1274         2/24/98         519         RTA00000404F.d.10.1         M00001638B:F10         23136           1275         2/24/98         520         RTA00000406F.c.20.1         M00003871D:G06         38578           1276         2/24/98         521         RTA00000413F.b.14.1         M00004078A:C11         66591           1277         2/24/98         522         RTA00000418F.j.09.1         M00001626C:D12         76352           1279         2/24/98         523         RTA00000419F.f.23.1         M00001349B:G05         5774           1280         2/24/98         525         RTA00000411F.a.05.1         M00001675B:H03         76699           1282         2/24/98         526         RTA00000419F.m.21.1         M000003825B:B10         21503           1284         2/24/98         529						
1271         2/24/98         516         RTA00000339F.f.20.1         M00001399A:C03         6494           1272         2/24/98         517         RTA00000118A.a.2.1         M00001395A:A12         38067           1273         2/24/98         518         RTA00000410F.m.18.1         M00001660B:A09         76365           1274         2/24/98         519         RTA00000404F.l.10.1         M00001638B:F10         23136           1275         2/24/98         520         RTA00000406F.c.20.1         M00003871D:G06         38578           1276         2/24/98         521         RTA00000413F.b.14.1         M00004078A:C11         66591           1277         2/24/98         522         RTA00000406F.c.18.1         M00003871C:F12         14368           1278         2/24/98         523         RTA00000418F.j.09.1         M00001626C:D12         76352           1279         2/24/98         524         RTA00000419F.f.23.1         M00003840D:H10         65002           1280         2/24/98         525         RTA00000411F.a.05.1         M00001675B:H03         76699           1282         2/24/98         527         RTA00000419F.m.21.1         M00003825B:B10         21503           1284         2/24/98         529						
1272         2/24/98         517         RTA00000118A.a.2.1         M00001395A:A12         38067           1273         2/24/98         518         RTA00000410F.m.18.1         M00001660B:A09         76365           1274         2/24/98         519         RTA00000404F.l.10.1         M00001638B:F10         23136           1275         2/24/98         520         RTA00000406F.c.20.1         M00003871D:G06         38578           1276         2/24/98         521         RTA00000413F.b.14.1         M00004078A:C11         66591           1277         2/24/98         522         RTA00000418F.j.09.1         M00003871C:F12         14368           1278         2/24/98         523         RTA00000418F.j.09.1         M00001626C:D12         76352           1279         2/24/98         524         RTA00000419F.f.23.1         M00003840D:H10         65002           1280         2/24/98         525         RTA00000348R.d.24.1         M00001349B:G05         5774           1281         2/24/98         526         RTA00000419F.m.21.1         M00003914A:E04         77947           1283         2/24/98         528         RTA0000045F.n.16.1         M00001655C:E01         13084						
1273         2/24/98         518         RTA00000410F.m.18.1         M00001660B:A09         76365           1274         2/24/98         519         RTA00000404F.l.10.1         M00001638B:F10         23136           1275         2/24/98         520         RTA00000406F.c.20.1         M00003871D:G06         38578           1276         2/24/98         521         RTA00000413F.b.14.1         M00004078A:C11         66591           1277         2/24/98         522         RTA00000406F.c.18.1         M00003871C:F12         14368           1278         2/24/98         523         RTA00000418F.j.09.1         M00001626C:D12         76352           1279         2/24/98         524         RTA00000419F.f.23.1         M00003840D:H10         65002           1280         2/24/98         525         RTA00000348R.d.24.1         M00001349B:G05         5774           1281         2/24/98         526         RTA00000411F.a.05.1         M00001675B:H03         76699           1282         2/24/98         527         RTA00000419F.m.21.1         M00003825B:B10         21503           1284         2/24/98         529         RTA00000422F.o.19.2         M00001655C:E01         13084						
1274         2/24/98         519         RTA00000404F.I.10.1         M00001638B:F10         23136           1275         2/24/98         520         RTA00000406F.c.20.1         M00003871D:G06         38578           1276         2/24/98         521         RTA00000413F.b.14.1         M00004078A:C11         66591           1277         2/24/98         522         RTA00000406F.c.18.1         M00003871C:F12         14368           1278         2/24/98         523         RTA00000418F.j.09.1         M00001626C:D12         76352           1279         2/24/98         524         RTA00000419F.f.23.1         M00003840D:H10         65002           1280         2/24/98         525         RTA00000348R.d.24.1         M00001349B:G05         5774           1281         2/24/98         526         RTA00000411F.a.05.1         M00001675B:H03         76699           1282         2/24/98         527         RTA00000419F.m.21.1         M00003825B:B10         21503           1284         2/24/98         529         RTA00000422F.o.19.2         M00001655C:E01         13084						
1275         2/24/98         520         RTA00000406F.c.20.1         M00003871D:G06         38578           1276         2/24/98         521         RTA00000413F.b.14.1         M00004078A:C11         66591           1277         2/24/98         522         RTA00000406F.c.18.1         M00003871C:F12         14368           1278         2/24/98         523         RTA00000418F.j.09.1         M00001626C:D12         76352           1279         2/24/98         524         RTA00000419F.f.23.1         M00003840D:H10         65002           1280         2/24/98         525         RTA00000348R.d.24.1         M00001349B:G05         5774           1281         2/24/98         526         RTA00000411F.a.05.1         M00001675B:H03         76699           1282         2/24/98         527         RTA00000419F.m.21.1         M00003914A:E04         77947           1283         2/24/98         528         RTA0000042F.n.16.1         M00001655C:E01         13084						
1276         2/24/98         521         RTA00000413F.b.14.1         M00004078A:C11         66591           1277         2/24/98         522         RTA00000406F.c.18.1         M00003871C:F12         14368           1278         2/24/98         523         RTA00000418F.j.09.1         M00001626C:D12         76352           1279         2/24/98         524         RTA00000419F.f.23.1         M00003840D:H10         65002           1280         2/24/98         525         RTA00000348R.d.24.1         M00001349B:G05         5774           1281         2/24/98         526         RTA00000411F.a.05.1         M00001675B:H03         76699           1282         2/24/98         527         RTA00000419F.m.21.1         M00003914A:E04         77947           1283         2/24/98         528         RTA00000425F.n.16.1         M00001655C:E01         13084						
1277       2/24/98       522       RTA00000406F.c.18.1       M00003871C:F12       14368         1278       2/24/98       523       RTA00000418F.j.09.1       M00001626C:D12       76352         1279       2/24/98       524       RTA00000419F.f.23.1       M00003840D:H10       65002         1280       2/24/98       525       RTA00000348R.d.24.1       M00001349B:G05       5774         1281       2/24/98       526       RTA00000411F.a.05.1       M00001675B:H03       76699         1282       2/24/98       527       RTA00000419F.m.21.1       M00003914A:E04       77947         1283       2/24/98       528       RTA00000405F.n.16.1       M00003825B:B10       21503         1284       2/24/98       529       RTA00000422F.o.19.2       M00001655C:E01       13084						
1278         2/24/98         523         RTA00000418F.j.09.1         M00001626C:D12         76352           1279         2/24/98         524         RTA00000419F.f.23.1         M00003840D:H10         65002           1280         2/24/98         525         RTA00000348R.d.24.1         M00001349B:G05         5774           1281         2/24/98         526         RTA00000411F.a.05.1         M00001675B:H03         76699           1282         2/24/98         527         RTA00000419F.m.21.1         M00003914A:E04         77947           1283         2/24/98         528         RTA00000405F.n.16.1         M00003825B:B10         21503           1284         2/24/98         529         RTA00000422F.o.19.2         M00001655C:E01         13084						
1279       2/24/98       524       RTA00000419F.f.23.1       M00003840D:H10       65002         1280       2/24/98       525       RTA00000348R.d.24.1       M00001349B:G05       5774         1281       2/24/98       526       RTA00000411F.a.05.1       M00001675B:H03       76699         1282       2/24/98       527       RTA00000419F.m.21.1       M00003914A:E04       77947         1283       2/24/98       528       RTA00000405F.n.16.1       M00003825B:B10       21503         1284       2/24/98       529       RTA00000422F.o.19.2       M00001655C:E01       13084						
1280       2/24/98       525       RTA00000348R.d.24.1       M00001349B:G05       5774         1281       2/24/98       526       RTA00000411F.a.05.1       M00001675B:H03       76699         1282       2/24/98       527       RTA00000419F.m.21.1       M00003914A:E04       77947         1283       2/24/98       528       RTA00000405F.n.16.1       M00003825B:B10       21503         1284       2/24/98       529       RTA00000422F.o.19.2       M00001655C:E01       13084				••		
1281       2/24/98       526       RTA00000411F.a.05.1       M00001675B:H03       76699         1282       2/24/98       527       RTA00000419F.m.21.1       M00003914A:E04       77947         1283       2/24/98       528       RTA00000405F.n.16.1       M00003825B:B10       21503         1284       2/24/98       529       RTA00000422F.o.19.2       M00001655C:E01       13084						
1282       2/24/98       527       RTA00000419F.m.21.1       M00003914A:E04       77947         1283       2/24/98       528       RTA00000405F.n.16.1       M00003825B:B10       21503         1284       2/24/98       529       RTA00000422F.o.19.2       M00001655C:E01       13084						
1283 2/24/98 528 RTA00000405F.n.16.1 M00003825B:B10 21503 1284 2/24/98 529 RTA00000422F.o.19.2 M00001655C:E01 13084						
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1287	2/24/98	532	RTA00000403F.a.24.1	M00001455B:A09	24128
1288	2/24/98	533	RTA00000423F.e.11.1	M00003809B:E10	2566
1289	2/24/98	534	RTA00000126A.g.7.1	M00001548A:H04	1902
1290	2/24/98	535	RTA00000119A.g.7.1	M00001454A:F11	83580
1291	2/24/98	536	RTA00000411F.i.02.1	M00003835B:H11	66975
1292	2/24/98	537	RTA00000408F.I.09.1	M00001530A:A09	75487
1293	2/24/98	538	RTA00000423F.g.04.1	M00003903D:C12	23012
1294	2/24/98	539	RTA00000346F.m.15.1	M00004037B:C04	13553
1295	2/24/98	540	RTA00000418F.i.18.1	M00001595C:B05	78024
1296	2/24/98	541	RTA00000411F.h.15.1	M00003832A:A09	65160
1297	2/24/98	542	RTA00000410F.i.19.1	M00001641B:C10	78988
1298	2/24/98	543	RTA00000419F.k.24.1	M00003878C:G08	75596
1299	2/24/98	544	RTA00000420F.I.21.2	M00005232A:H12	0
1300	2/24/98	545	RTA00000420F.e.15.1	M00004110A:A10	20190
1301	2/24/98	546	RTA00000409F.i.09.1	M00001610B:C07	75279
1302	2/24/98	547	RTA00000419F.h.02.1	M00003845D:G08	63985
1303	2/24/98	548	RTA00000413F.b.12.1	M00004077B:H11	64932
1304	2/24/98	549	RTA00000121A.h.18.1	M00001471A:B04	16376
1305	2/24/98	550	RTA00000411F.n.20.1	M00003875C:A09	75816
1306	2/24/98	551	RTA00000340F.b.05.1	M00001513A:G07	0
1307	2/24/98	552	RTA00000411F.n.12.1	M00003875A:C04	73308
1308	2/24/98	553	RTA00000408F.j.12.2	M00001485B:C03	18226
1309	2/24/98	554	RTA00000409F.i.03.1	M00001610A:E09	75968
1310	2/24/98	555	RTA00000133A.d.22.1	M00001469A:G11	11797
1311	2/24/98	556	RTA00000400F.i.11.1	M00001649C:H10	2587
1312	2/24/98	557	RTA00000409F.j.05.1	M00001611C:C12	74128
1313 1314	2/24/98	558	RTA00000419F.m.04.1	M00003906C:C05	74367
1314	2/24/98	559	RTA00000418F.k.03.1	M00001634D:G11	78901
1315	2/24/98 2/24/98	560	RTA00000419F.d.16.1	M00003828B:E07	64357
1317	2/24/98	561	RTA00000420F.e.10.1	M00004108D:G04	65899
1317	2/24/98	562	RTA00000401F.j.17.1	M00003901B:C05	5483
1319	2/24/98	563 564	RTA00000406F.b.08.1	M00003867D:A06	18258
1320	2/24/98	565	RTA00000418F.k.08.1	M00001639A:C03	18259
1321	2/24/98	566	RTA00000420F.k.17.2	M00005217B:A06	0
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1323	2/24/98	568	RTA00000410F.c.02.1 RTA00000403F.m.03.1	M00001633D:D12	75055
1324	2/24/98	569	RTA00000403F.h.18.1	M00001573D:D10	39179
1325	2/24/98	570	RTA00000405F.n.13.1	M00001484C:A04	39241
1326	2/24/98	571	RTA00000405F.II.15.1 RTA00000355R.e.14.1	M00003824A:G10	23810
1327	2/24/98	572	RTA00000333Rte.14.1	M00004314B:G07 M00001610D:D05	16837
1328	2/24/98	573	RTA000004221.i.o3.1	M00001810D:D05 M00005229B:G12	39147
1329	2/24/98	574	RTA00000403F.o.14.1	M00003229B:G12 M00001579D:H09	0
1330	2/24/98	575	RTA00000345F.a.18.1	M00001379D:H09 M00001351C:B06	38971
1331	2/24/98	576	RTA00000401F.d.15.2	M00001331C.B06 M00001693C:C12	5517
1332	2/24/98	577	RTA00000419F.e.11.1	M00001893C:C12 M00003833B:C12	5297
1333	2/24/98	578	RTA00000127A.f.11.1	M00003833B:C12	36780 81463
1334	2/24/98	579	RTA00000413F.m.16.1	M00001334A:A08 M00004898C:F03	81463 0
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1339	2/24/98	584	RTA00000418F.d.22.1	M00001573B:C06	75324
1340	2/24/98	585	RTA00000340R.o.12.1	M00003746C:E02	53732
1341	2/24/98	586	RTA00000125A.g.24.1	M00001544A:F05	80397
1342	2/24/98	587	RTA00000130A.o.21.1	M00001623A:F04	80218
1343	2/24/98	588	RTA00000420F.a.23.1	M00004078B:F12	42158
1344	2/24/98	589	RTA00000411F.m.18.1	M00003868D:D09	75629
1345	2/24/98	590	RTA00000407F.b.22.1	M00004108B:B02	37487
1346	2/24/98	591	RTA00000409F.a.16.1	M00001583A:A05	73990
1347	2/24/98	592	RTA00000421F.p.18.1	M00003877B:H10	750
1348	2/24/98	593	RTA00000341F.k.12.1	M00004103C:D04	62985
1349	2/24/98	594	RTA00000129A.c.18.2	M00001587A:B10	37216
1350	2/24/98	595	RTA00000410F.d.10.1	M00001635B:H02	77561
1351	2/24/98	596	RTA00000351R.i.03.1	M00003846B:D06	6874
1352	2/24/98	597	RTA00000135A.I.1.2	M00001545A:B10	39426
1353	2/24/98	598	RTA00000420F.b.18.1	M00004086D:G08	66136
1354	2/24/98	599	RTA00000401F.k.14.1	M00003903A:H09	211
1355	2/24/98	600	RTA00000406F.m.04.1	M00003914B:A11	14959
1356	2/24/98	601	RTA00000403F.o.13.1	M00001579D:F04	39049
1357	2/24/98	602	RTA00000411F.f.06.1	M00003813B:E09	64186
1358	2/24/98	603	RTA00000399F.o.19.1	M00001607A:F11	2594
1359	2/24/98	604	RTA00000351R.c.13.1	M00003747D:C05	11476
1360	2/24/98	605	RTA00000403F.c.14.1	M00001457D:A07	0
1361	2/24/98	606	RTA00000420F.1.20.2	M00005232A:C10	0
1362	2/24/98	607	RTA00000420F.d.16.1	M00004103D:F10	64485
1363	2/24/98	608	RTA00000404F.i.12.1	M00001620D:G11	39001
1364	2/24/98	609	RTA00000404F.o.10.2	M00001651B:B12	16785
1365	2/24/98	610	RTA00000419F.d.07.1	M00003820B:D10	21421
1366	2/24/98	611	RTA00000404F.p.02.2	M00001652D:A06	39097
1367	2/24/98	612	RTA00000125A.k.14.1	M00001545A:G05	79457
1368	2/24/98	613	RTA00000122A.j.22.1	M00001516A:F06	81151
1369	2/24/98	614	RTA00000406F.i.13.1	M00003904A:C04	37904
1370	2/24/98	615	RTA00000135A.b.23.1	M00001538A:D12	35241
1371	2/24/98	616	RTA00000423F.c.11.1	M00001677D:B02	0
1372	2/24/98	617	RTA00000423F.f.23.1	M00003816C:E09	15390
1373	2/24/98	618	RTA00000423F.I.04.1	M00004039B:G08	14320
1374	2/24/98	619	RTA00000420F.b.04.1	M00004081A:E02	63820
1375	2/24/98	620	RTA00000420F.a.07.1	M00004072C:F08	63405
1376	2/24/98	621	RTA00000408F.i.18.2	M00001482C:D02	74410
1377	2/24/98	622	RTA00000404F.I.07.1	M00001637C:C06	10798
1378	2/24/98	623	RTA00000341F.j.05.1	M00003963D:B05	36177
1379	2/24/98	624	RTA00000420F.a.16.1	M00004075D:C10	63345
1380	2/24/98	625	RTA00000126A.h.22.2	M00001549A:F01	0
1381	2/24/98	626	RTA00000410F.j.01.1	M00001641B:F12	73399
1382	2/24/98	627	RTA00000408F.p.21.1	M00001579A:C03	77930
1383	2/24/98	628	RTA00000412F.d.19.1	M00003907B:C03	75743
1384	2/24/98	629	RTA00000352R.c.04.1	M00003924A:D08	71976
1385	2/24/98	630	RTA00000413F.f.19.1	M00004100B:C07	65189
			161		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
1386	2/24/98	631	RTA00000411F.e.03.1	M00001694D:C12	73648
1387	2/24/98	632	RTA00000191AF.j.14.1	M00004073A:H12	1002
1387	1/28/98	387	RTA00000191AF.j.14.1	M00004073A:H12	1002
1388	2/24/98	633	RTA00000341F.d.02.1	M00003797A:G03	4706
1389	2/24/98	634	RTA00000418F.c.04.1	M00001487B:A11	41587
1390	2/24/98	635	RTA00000418F.o.17.1	M00001661B:F03	79069
1391	2/24/98	636	RTA00000418F.e.21.1	M00001577B:A03	74773
1392	2/24/98	637	RTA00000419F.d.14.1	M00003828A:D05	64945
1393	2/24/98	638	RTA00000418F.b.09.1	M00001478B:H08	19700
1394	2/24/98	639	RTA00000414F.d.09.1	M00005231C:B01	0
1395	2/24/98	640	RTA00000405F.f.02.1	M00001669B:G02	38665
1396	2/24/98	641	RTA00000410F.j.20.1	M00001642D:G10	73601
1397	2/24/98	642	RTA00000341F.h.19.1	M00003916C:C05	0
1398	2/24/98	643	RTA00000420F.l.14.2	M00005230D:F06	0
1399	2/24/98	644	RTA00000119A.j.9.1	M00001460A:B12	82060
1400	2/24/98	645	RTA00000422F.p.12.2	M00001661C:F10	9840
1401	2/24/98	646	RTA00000421F.m.14.1	M00001642A:F03	3524
1402	2/24/98	647	RTA00000418F.b.23.1	M00001485A:C05	28767
1403	2/24/98	648	RTA00000340F.i.13.1	M00001624B:B10	79299
1404	2/24/98	649	RTA00000412F.g.03.1	M00003971B:A10	64740
1405	2/24/98	650	RTA00000122A.g.17.1	M00001514A:B08	32655
1406	2/24/98	651	RTA00000403F.g.11.1	M00001481A:H08	24238
1407	2/24/98	652	RTA00000419F.n.12.1	M00003977D:A03	66086
1408	2/24/98	653	RTA00000352R.m.12.1	M00004212B:C07	2379
1409	2/24/98	654	RTA00000421F.a.05.1	M00001570C:G06	5278
1410	2/24/98	655	RTA00000351R.p.14.1	M00003915C:H04	13166
1411	2/24/98	656	RTA00000403F.e.08.1	M00001473D:B11	19126
1412	2/24/98	657	RTA00000124A.k.20.1	M00001538A:C08	80913
1413	2/24/98	658	RTA00000121A.n.2.1	M00001511A:A05	33585
1414	2/24/98	659	RTA00000422F.m.24.1	M00001641D:C04	39159
1415	2/24/98	660	RTA00000408F.e.24.2	M00001476C:C11	75002
1416	2/24/98	661	RTA00000341F.I.16.1	M00003986D:C08	8479
1417	2/24/98	662	RTA00000339F.o.07.1	M00001473D:G01	2566
1418	2/24/98	663	RTA00000403F.b.12.1	M00001455D:A06	78775
1419	2/24/98	664	RTA00000404F.a.09.1	M00001589C:E06	38985
1420	2/24/98	665	RTA00000419F.p.20.1	M00004039A:C03	9458
1421	2/24/98	666	RTA00000403F.o.19.1	M00001582D:F02	78615
1422	2/24/98	667	RTA00000405F.h.07.2	M00001674A:G11	4984
1423	2/24/98	668	RTA00000408F.m.05.2	M00001530C:G10	23384
1424	2/24/98	669	RTA00000410F.b.10.1	M00001633C:B09	74504
1425	2/24/98	670	RTA00000131A.i.6.1	M00001450A:B08	0
1426	2/24/98	671	RTA00000413F.h.12.1	M00004107A:A12	66929
1427	2/24/98	672	RTA00000406F.k.14.1	M00003907C:C02	38651
1428	2/24/98	673	RTA00000406F.d.09.1	M00003875B:F12	38591
1429	2/24/98	674	RTA00000411F.f.17.1	M00003814B:F12	65661
1430	2/24/98	675	RTA00000411F.k.10.1	M00003850D:H11	64506
1431	2/24/98	676	RTA00000411F.g.21.1	M00003823D:G05	64500
1432	2/24/98	677	RTA00000119A.h.24.1	M00001457A:C05	82266
1433	1/28/98	412	RTA00000195AF.c.24.1	M00003860D:H07	0
1433	2/24/98	678	RTA00000195AF.c.24.1	M00003860D:H07	0

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appin			
1434	2/24/98	679	RTA00000408F.m.22.2	M00001539A:C12	72949
1435	2/24/98	680	RTA00000345F.e.11.1	M00001391C:C04	4392
1436	2/24/98	681	RTA00000120A.c.24.1	M00001464A:D03	34278
1437	2/24/98	682	RTA00000410F.i.17.1	M00001641B:B01	78147
1438	2/24/98	683	RTA00000403F.j.21.1	M00001540D:E02	24723
1439	2/24/98	684	RTA00000339F.k.20.1	M00001426D:D12	6662
1440	2/24/98	685	RTA00000129A.a.13.2	M00001582A:A03	79780
1441	2/24/98	686	RTA00000129A.k.21.1	M00001601A:E12	82067
1442	2/24/98	687	RTA00000350R.g.10.1	M00001587C:C10	9026
1443	2/24/98	688	RTA00000413F.d.23.1	M00004090B:H06	66030
1444	2/24/98	689	RTA00000419F.p.03.1	M00004035A:G10	1937
1445	2/24/98	690	RTA00000341F.b.05.1	M00003793D:A11	0
1446	2/24/98	691	RTA00000354R.n.08.1	M00003835A:A09	8802
1447	2/24/98	692	RTA00000411F.d.10.1	M00001681D:C12	76445
1448	2/24/98	693	RTA00000404F.b.19.1	M00001592B:A04	39281
1449	2/24/98	694	RTA00000418F.c.07.1	M00001529D:C05	73245
1450	2/24/98	695	RTA00000418F.j.15.1	M00001632C:H07	74855
1451	2/24/98	696	RTA00000404F.p.12.2	M00001653B:C06	0
1452	2/24/98	697	RTA00000412F.d.14.1	M00003905D:C08	76757
1453	2/24/98	698	RTA00000413F.b.16.1	M00004078A:E05	65126
1454	2/24/98	699	RTA00000340F.1.05.1	M00001644B:D06	38935
1455	2/24/98	700	RTA00000350R.m.14.1	M00001644C:B07	39171
1456	2/24/98	701	RTA00000418F.l.11.1	M00001641C:H07	77158
1457	2/24/98	702	RTA00000130A.d.5.1	M00001605A:H03	82051
1458	2/24/98	703	RTA00000339F.n.05.1	M00001449D:B01	39648
1459	2/24/98	704	RTA00000355R.a.12.1	M00004159C:F09	36756
1460	2/24/98	705	RTA00000407F.a.23.1	M00004081C:A10	23489
1461	2/24/98	706	RTA00000403F.a.09.1	M00001448B:H05	77820
1462	2/24/98	707	RTA00000403F.h.11.1	M00001483B:D04	39219
1463	2/24/98	708	RTA00000406F.j.13.1	M00003905D:B08	38688
1464	2/24/98	709	RTA00000352R.p.09.1	M00004228C:H03	16915
1465	2/24/98	710	RTA00000413F.g.24.1	M00004104D:A04	65481
1466	2/24/98	711	RTA00000404F.I.03.2	M00001636B:G11	40272
1467	2/24/98	712	RTA00000407F.b.18.1	M00004102C:D09	37569
1468	2/24/98	713	RTA00000414F.b.10.1	M00005212D:D09	0
1469	2/24/98	714	RTA00000420F.a.08.1	M00004073A:D10	19473
1470	2/24/98	715	RTA00000418F.b.01.1	M00001475C:G11	76040
1471	2/24/98	716	RTA00000420F.I.03.2	M00005217D:F12	0
1472	2/24/98	717	RTA00000404F.i.22.1	M00001625C:G05	39082
1473	2/24/98	718	RTA00000124A.k.23.1	M00001538A:D03	81350
1474	2/24/98	719	RTA00000404F.e.11.1	M00001608C:E11	38991
1475	2/24/98	720	RTA00000129A.d.2.4	M00001587A:G06	80119
1476	2/24/98	721	RTA00000422F.k.14.1	M00001649D:A08	0
1477	2/24/98	722	RTA00000411F.1.22.1	M00003858B:G05	64439
1478	2/24/98	723	RTA00000419F.o.15.1	M00003989C:D03	32487
1479	2/24/98	724	RTA00000119A.m.17.1	M00001461A:F05	79536
1480	2/24/98	725	RTA00000410F.b.07.1	M00001633C:A05	78916
1481	2/24/98	726	RTA00000420F.b.19.1	M00004088D:A11	36873
1482	2/24/98	727	RTA00000414F.d.02.1	M00005229B:H06	0
1483	2/24/98	728	RTA00000411F.b.21.1	M00001677B:A02	10051

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
1.40.4	Appln	Appln			
1484	2/24/98	729	RTA00000403F.m.20.1	M00001576A:F11	707
1485	2/24/98	730	RTA00000356R.c.16.1	M00004294C:C08	16915
1486	2/24/98	731	RTA00000119A.d.17.1	M00001453A:B01	0
1487	2/24/98	732	RTA00000412F.h.11.1	M00003974B:B11	63175
1488	2/24/98	733	RTA00000405F.d.18.1	M00001662C:B02	10494
1489	2/24/98	734	RTA00000414F.e.09.1	M00005236A:G10	0
1490	2/24/98	735	RTA00000420F.a.11.1	M00004073C:D04	66460
1491	2/24/98	736	RTA00000120A.c.7.1	M00001462A:D03	80985
1492	2/24/98	737	RTA00000404F.e.15.1	M00001609B:C09	39101
1493	2/24/98	738	RTA00000422F.n.20.1	M00001669B:B12	38676
1494	2/24/98	739	RTA00000423F.h.20.1	M00003914A:G06	38639
1495	2/24/98	740	RTA00000399F.I.19.1	M00001590D:G07	40145
1496	2/24/98	741	RTA00000414F.b.12.1	M00005212D:H01	0
1497	2/24/98	742	RTA00000410F.b.18.1	M00001633C:H11	76701
1498	2/24/98	743	RTA00000345F.i.08.1	M00001449D:G10	0
1499	2/24/98	744	RTA00000423F.g.15.1	M00003905A:F09	35173
1500	2/24/98	745	RTA00000413F.b.04.1	M00004076D:H07	66427
1501	2/24/98	746	RTA00000345F.e.02.1	M00001395A:E03	0
1502	2/24/98	747	RTA00000413F.n.24.1	M00004960C:E10	0
1503	2/24/98	748	RTA00000346F.f.11.1	M00003793C:D09	38528
1504	2/24/98	749	RTA00000351R.i.13.1	M00003858D:F12	0
1505	2/24/98	750	RTA00000403F.c.05.1	M00001456C:C11	74935
1506	2/24/98	751	RTA00000422F.i.02.1	M00001456C:B12	76436
1507	2/24/98	752	RTA00000410F.a.08.1	M00001632A:B10	73324
1508	2/24/98	753	RTA00000345F.o.13.1	M00001546B:F12	11500
1509	2/24/98	754	RTA00000419F.e.02.1	M00003830C:A03	65010
1510	2/24/98	755	RTA00000423F.d.17.1	M00001663A:C11	20630
1511	2/24/98	756	RTA00000403F.g.13.1	M00001481B:D09	38718
1512	2/24/98	757	RTA00000423F.h.13.1	M00003871A:B09	14398
1513	2/24/98	758	RTA00000407F.a.01.1	M00004039A:H11	12501
1514	2/24/98	759	RTA00000399F.o.06.1	M00001595D:G03	13574
1515	2/24/98	760	RTA00000423F.d.04.1	M00001694A:B12	11307
1516	2/24/98	761	RTA00000411F.f.14.1	M00003814B:C12	62984
1517	2/24/98	762	RTA00000411F.c.04.1	M00001677B:E06	76858
1518	2/24/98	763	RTA00000135A.m.18.1	M00001545A:C03	19255
1519	2/24/98	764	RTA00000413F.c.17.1	M00004085B:B05	36831
1520	2/24/98	765	RTA00000137A.j.15.4	M00001559A:C08	4213
1521	2/24/98	766	RTA00000404F.j.01.1	M00001625D:G10	26859
1522	2/24/98	767	RTA00000138A.p.10.1	M00001644A:H01	81625
1523	2/24/98	768	RTA00000121A.k.5.1	M00001507A:E04	17530
1524	2/24/98	769	RTA00000340F.i.10.1	M00001618A:F10	38561
1525	2/24/98	770	RTA00000421F.f.05.1	M00001477B:E02	5266
1526	2/24/98	771	RTA00000423F.h.07.1	M00003911B:F08	37933
1527	2/24/98	772	RTA00000413F.e.04.1	M00004090C:C07	64176
1528	2/24/98	773	RTA00000406F.h.03.1	M00003901B:A09	38585
1529	2/24/98	774	RTA00000403F.e.24.1	M00001476B:D10	16432
1530	2/24/98	775	RTA00000405F.c.22.1	M00001660C:B06	39053
1531	2/24/98	776	RTA00000403F.i.11.1	M00001485D:E05	23535
1532	2/24/98	777	RTA00000419F.g.02.1	M00003842A:A03	62839
1533	2/24/98	778	RTA00000347F.e.05.1	M00001578D:C04	39814
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SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appin	Appln			
1534	2/24/98	779	RTA00000408F.I.16.1	M00001530A:F12	73468
1535	2/24/98	780	RTA00000405F.I.11.1	M00001693D:E08	2055
1536	2/24/98	781	RTA00000423F.f.09.1	M00003808C:A05	64823
1537	2/24/98	782	RTA00000419F.k.03.1	M00003871C:B05	40822
1538	2/24/98	783	RTA00000406F.b.02.1	M00003867B:G08	38744
1539	2/24/98	784	RTA00000418F.o.14.1	M00001661B:B05	33524
1540	2/24/98	785	RTA00000404F.I.03.1	M00001636B:G11	40272
1541	2/24/98	786	RTA00000404F.b.09.1	M00001591D:C07	39166
1542	2/24/98	787	RTA00000345F.i.24.1	M00001449C:C05	0
1543	2/24/98	788	RTA00000419F.i.04.1	M00003860B:F11	65791
1544	2/24/98	789	RTA00000423F.b.13.1	M00001676C:E07	20619
1545	2/24/98	790	RTA00000345F.n.08.1	M00001517A:B11	0
1546	2/24/98	791	RTA00000399F.n.15.1	M00001594D:C03	3213
1547	2/24/98	792	RTA00000406F.k.11.1	M00003907B:D05	38715
1548	2/24/98	793	RTA00000414F.e.21.1	M00005257C:G01	0
1549	2/24/98	794	RTA00000406F.c.06.1	M00003870C:A01	37924
1550	2/24/98	795	RTA00000418F.n.07.1	M00001658B:A07	76316
1551	2/24/98	796	RTA00000419F.n.15.1	M00003977D:D04	63484
1552	2/24/98	797	RTA00000408F.n.06.2	M00001539A:H12	76642
1553	2/24/98	798	RTA00000420F.c.04.1	M00004089A:B08	65007
1554	2/24/98	799	RTA00000411F.j.15.1	M00003843A:E04	66871
1555	2/24/98	800	RTA00000403F.m.12.1	M00001575D:A02	16933
1556	2/24/98	801	RTA00000128A.m.23.1	M00001561A:D01	81441
1557	2/24/98	802	RTA00000406F.g.03.1	M00003880B:D11	38690
1558	2/24/98	803	RTA00000405F.h.05.2	M00001674A:G07	75706
1559	2/24/98	804	RTA00000129A.n.24.1	M00001604A:C07	81409
1560	2/24/98	805	RTA00000406F.j.08.1	M00003905B:C06	6688
1561	2/24/98	806	RTA00000345F.f.08.1	M00001413B:H09	0
1562	2/24/98	807	RTA00000418F.n.11.1	M00001658D:G12	78977
1563	2/24/98	808	RTA00000418F.p.08.1	M00001669D:D06	73983
1564	2/24/98	809	RTA00000420F.i.23.1	M00005134A:D11	0
1565	2/24/98	810	RTA00000120A.h.9.1	M00001465A:B12	80736
1566	2/24/98	811	RTA00000413F.a.12.1	M00004072D:F09	63403
1567	2/24/98	812	RTA00000412F.o.05.1	M00004034A:A01	63575
1568	2/24/98	813	RTA00000346F.o.06.1	M00004136D:B02	4937
1569	2/24/98	814	RTA00000408F.I.24.1	M00001530B:G09	34263
1570	2/24/98	815	RTA00000403F.a.17.1	M00001448D:E12	13686
1571	2/24/98	816	RTA00000354R.n.04.1	M00003808C:B05	22049
1572	2/24/98	817	RTA00000420F.1.08.2	M00005228C:C05	0
1573	2/24/98	818	RTA00000406F.h.05.1	M00003901B:C03	38542
1574	2/24/98	819	RTA00000410F.b.24.1	M00001633D:D09	75104
1575	2/24/98	820	RTA00000423F.d.11.1	M00001678C:C06	38950
1576	2/24/98	821	RTA00000420F.h.16.1	M00004927A:E06	0
1577	2/24/98	822	RTA00000419F.o.21.1	M00004031A:E01	10336
1578	2/24/98	823	RTA00000119A.k.1.1	M00001460A:H11	81282
1579	2/24/98	824	RTA00000420F.f.07.1	M00004119A:C09	66312
1580	2/24/98	825	RTA00000404F.k.22.2	M00001635D:C12	39084
1581	2/24/98	826	RTA00000422F.e.07.1	M00001579C:G05	38964
1582	2/24/98	827	RTA00000410F.f.12.1	M00001637C:E03	73883
1583	2/24/98	828	RTA00000419F.n.05.1	M00003976C:D06	63713

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
1504	Appin	Appln			
1584	2/24/98	829	RTA00000411F.m.11.1	M00003867A:D12	73196
1585	2/24/98	830	RTA00000347F.b.08.1	M00001541B:E05	17591
1586	2/24/98	831	RTA00000420F.d.21.1	M00004107B:B04	65313
1587	2/24/98	832	RTA00000403F.o.10.2	M00001579C:G05	38964
1588	2/24/98	833	RTA00000420F.j.20.1	M00005140D:C06	0
1589	2/24/98	834	RTA00000407F.b.11.1	M00004090C:C10	0
1590	2/24/98	835	RTA00000413F.c.10.1	M00004083B:C01	65600
1591	2/24/98	836	RTA00000411F.b.17.1	M00001676D:B02	72893
1592	2/24/98	837	RTA00000420F.h.01.1	M00004897C:D06	0
1593	2/24/98	838	RTA00000408F.k.19.1	M00001487C:G03	77593
1594	2/24/98	839	RTA00000414F.b.01.1	M00005212B:A02	0
1595	2/24/98	840	RTA00000420F.b.20.1	M00004088D:B05	0
1596	2/24/98	841	RTA00000119A.i.8.1	M00001457A:G12	82593
1597	2/24/98	842	RTA00000401F.n.23.1	M00003982A:B06	1552
1598	2/24/98	843	RTA00000418F.g.03.1	M00001579C:E06	78737
1599	2/24/98	844	RTA00000411F.a.09.1	M00001675C:F01	78629
1600	2/24/98	845	RTA00000348R.b.04.1	M00001342B:E01	1890
1601	2/24/98	846	RTA00000419F.j.11.1	M00003868C:C07	73183
1602	2/24/98	847	RTA00000403F.I.11.1	M00001571D:F05	25073
1603	2/24/98	848	RTA00000404F.n.18.2	M00001649C:E11	37169
1604	2/24/98	849	RTA00000122A.n.16.1	M00001517A:G08	80553
1605	2/24/98	850	RTA00000420F.c.07.1	M00004089A:E02	65555
1606	2/24/98	851	RTA00000423F.d.07.1	M00001678B:B12	0
1607	2/24/98	852	RTA00000414F.f.03.1	M00005257D:G07	0
1608	2/24/98	853	RTA00000408F.j.13.2	M00001485B:D10	42275
1609	2/24/98	854	RTA00000345F.a.07.1	M00001338C:E10	0
1610	2/24/98	855	RTA00000423F.a.01.1	M00001659C:F10	39103
1611	2/24/98	856	RTA00000408F.d.02.1	M00001458D:A01	79169
1612	2/24/98	857	RTA00000404F.e.09.1	M00001608B:A09	39121
1613	2/24/98	858	RTA00000341F.e.20.1	M00003891D:B10	67422
1614	2/24/98	859	RTA00000419F.m.22.1	M00003914A:G09	75600
1615	2/24/98	860	RTA00000419F.m.23.1	M00003958B:E11	64263
1616	2/24/98	861	RTA00000419F.b.06.1	M00001694B:B08	76728
1617	2/24/98	862	RTA00000414F.c.07.1	M00005216A:H01	0
1618	2/24/98	863	RTA00000406F.p.08.1	M00004032C:B02	37573
1619	2/24/98	864	RTA00000129A.n.17.1	M00001604A:A09	79811
1620	2/24/98	865	RTA00000414F.c.03.1	M00005216A:D09	0
1621	2/24/98	866	RTA00000407F.b.08.1	M00004088D:B03	37513
1622	2/24/98	867	RTA00000339F.I.21.1	M00001455D:D11	9781
1623	2/24/98	868	RTA00000406F.i.08.1	M00003903C:E12	37946
1624	2/24/98	869	RTA00000403F.h.07.1	M00001482D:H11	26856
1625	2/24/98	870	RTA00000418F.n.24.1	M00001659D:C09	73153
1626	2/24/98	871	RTA00000403F.f.23.1	M00001479C:E01	39223
1627	2/24/98	872	RTA00000409F.1.20.1	M00001615B:G01	74394
1628	2/24/98	873	RTA00000418F.I.06.1	M00001641C:F01	73317
1629	2/24/98	874	RTA00000346F.o.22.1	M00004300C:H09	7381
1630	2/24/98	875	RTA00000129A.k.22.1	M00001601A:E02	79639
1631	2/24/98	876	RTA00000423F.d.16.1	M00001678D:C11	39173
1632	2/24/98	877	RTA00000418F.m.22.1	M00001654D:E12	74567
1633	2/24/98	878	RTA00000413F.c.12.1	M00004083B:G03	65334
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SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
1634	2/24/98	879	RTA00000409F.b.19.1	M00001584D:H02	14479
1635	2/24/98	880	RTA00000418F.g.20.1	M00001585B:C03	74626
1636	2/24/98	881	RTA00000413F.d.15.1	M00004088C:E04	64943
1637	2/24/98	882	RTA00000355R.c.03.1	M00004244C:G07	3986
1638	2/24/98	883	RTA00000406F.c.09.1	M00003870C:E10	5671
1639	2/24/98	884	RTA00000412F.c.10.1	M00003903C:C04	76372
1640	2/24/98	885	RTA00000122A.j.17.1	M00001516A:D02	62736
1641	2/24/98	886	RTA00000420F.m.15.1	M00005235B:F10	0
1642	2/24/98	887	RTA00000339F.p.06.1	M00001484A:A10	4880
1643	2/24/98	888	RTA00000339R.c.04.1	M00001362D:H01	1805
1644	2/24/98	889	RTA00000346F.b.16.1	M00001615C:G05	16485
1645	2/24/98	890	RTA00000418F.j.19.1	M00001634D:D02	78399
1646	2/24/98	891	RTA00000137A.p.12.1	M00001587A:B01	80614
1647	2/24/98	892	RTA00000339F.m.17.1	M00001453B:H12	20854
1648	2/24/98	893	RTA00000418F.p.10.1	M00001669D:F05	75323
1649	2/24/98	894	RTA00000408F.k.12.1	M00001486B:D07	77246
1650	2/24/98	895	RTA00000137A.j.11.4	M00001559A:A11	79752
1651	2/24/98	896	RTA00000423F.1.20.1	M00004105C:E09	12580
1652	2/24/98	897	RTA00000419F.n.24.1	M00003980A:F04	65995
1653	2/24/98	898	RTA00000418F.I.03.1	M00001641C:C06	79058
1654	2/24/98	899	RTA00000406F.h.10.1	M00003901C:F09	22732
1655	2/24/98	900	RTA00000419F.m.13.1	M00003908A:F12	79052
1656	2/24/98	901	RTA00000418F.j.14.1	M00001632C:B10	32623
1657	2/24/98	902	RTA00000403F.a.10.1	M00001448C:E11	73952
1658	2/24/98	903	RTA00000420F.a.21.1	M00004078B:C11	66241
1659	2/24/98	904	RTA00000127A.e.6.1	M00001553A:E07	5885
1660	2/24/98	905	RTA00000405F.g.21.2	M00001673B:F07	38966
1661	2/24/98	906	RTA00000405F.g.21.1	M00001673B:F07	38966
1662	2/24/98	907	RTA00000419F.m.06.1	M00003906C:D06	75749
1663	2/24/98	908	RTA00000423F.g.03.1	M00003905C:G11	38007
1664	2/24/98	909	RTA00000420F.i.04.1	M00004959D:H12	0
1665	2/24/98	910	RTA00000418F.f.03.1	M00001577B:F10	78911
1666	2/24/98	911	RTA00000406F.p.13.1	M00004034C:G02	8584
1667	2/24/98	912	RTA00000404F.g.13.1	M00001614C:E06	9436
1668	2/24/98	913	RTA00000120A.c.20.1	M00001464A:B07	43235
1669	2/24/98	914	RTA00000138A.m.15.1	M00001624A:A03	41603
1670	2/24/98	915	RTA00000408F.f.14.2	M00001476D:F03	73024
1671	2/24/98	916	RTA00000418F.p.20.1	M00001677D:B07	78023
1672	2/24/98	917	RTA00000423F.e.21.1	M00003806B:G05	66961
1673	2/24/98	918	RTA00000419F.j.22.1	M00003871A:A02	73525
1674	2/24/98	919	RTA00000410F.d.18.1	M00001635D:D05	75458
1675	2/24/98	920	RTA00000403F.b.24.1	M00001456B:G01	78838
1676	2/24/98	921	RTA00000422F.j.02.1	M00001594D:B08	10368
1677	2/24/98	922	RTA00000410F.e.09.1	M00001636A:F08	76093
1678	2/24/98	923	RTA00000126A.d.19.1	M00001548A:G01	79474
1679	2/24/98	924	RTA00000354R.m.02.1	M00003890B:C08	12766
1680	2/24/98	925	RTA00000353R.h.10.1	M00001390C:C11	39498
1681	2/24/98	926	RTA00000399F.k.20.1	M00001585C:D10	3003
1682	2/24/98	927	RTA00000411F.d.21.1	M00001692B:E01	74794
1683	2/24/98	928	RTA00000340F.m.04.1	M00001679B:H07	19406

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
1.604	Appln	Appln			
1684	2/24/98	929	RTA00000411F.n.09.1	M00003875A:A07	78962
1685	2/24/98	930	RTA00000127A.h.22.2	M00001554A:E04	13155
1686	2/24/98	931	RTA00000420F.e.09.1	M00004108D:E07	66325
1687	2/24/98	932	RTA00000405F.p.03.1	M00003844A:A11	11346
1688	2/24/98	933	RTA00000419F.a.18.1	M00001680A:B02	78484
1689	2/24/98	934	RTA00000414F.e.01.1	M00005233D:H07	0
1690	2/24/98	935	RTA00000420F.i.07.1	M00004960A:B08	0
1691	2/24/98	936	RTA00000121A.n.23.1	M00001511A:G01	26981
1692	2/24/98	937	RTA00000121A.n.15.1	M00001511A:G08	40849
1693	2/24/98	938	RTA00000403F.i.23.1	M00001487B:E10	11364
1694	2/24/98	939	RTA00000405F.a.03.1	M00001654C:E04	39065
1695	2/24/98	940	RTA00000414F.f.17.1	M00005260A:F04	0
1696	2/24/98	941	RTA00000419F.p.08.1	M00004036D:B04	65560
1697	2/24/98	942	RTA00000126A.n.6.2	M00001551A:D04	79917
1698	2/24/98	943	RTA00000413F.c.03.1	M00004081D:H09	64527
1699	2/24/98	944	RTA00000422F.k.24.1	M00001610C:E06	39118
1700	2/24/98	945	RTA00000412F.c.17.1	M00003905A:A06	75620
1701	2/24/98	946	RTA00000414F.b.07.1	M00005212C:D02	0
1702	2/24/98	947	RTA00000347F.g.08.1	M00004096B:F05	23121
1703	2/24/98	948	RTA00000419F.o.06.1	M00003986C:D09	64643
1704	2/24/98	949	RTA00000340R.j.07.1	M00001654C:D05	38954
1705	2/24/98	950	RTA00000423F.j.02.1	M00003903B:C02	38617
1706	2/24/98	951	RTA00000419F.c.04.1	M00003815C:D12	63749
1707	2/24/98	952	RTA00000411F.a.01.1	M00001675B:D02	74524
1708	2/24/98	953	RTA00000406F.f.05.1	M00003878C:F06	22961
1709	2/24/98	954	RTA00000410F.n.05.1	M00001662A:C07	77830
1710	2/24/98	955	RTA00000404F.e.06.1	M00001607D:F06	39315
1711	2/24/98	956	RTA00000423F.I.06.1	M00004062A:H06	38136
1712	2/24/98	957	RTA00000411F.c.03.1	M00001677B:B06	79280
1713	2/24/98	958	RTA00000195AF.c.8.1	M00001678B:H01	0
1713	1/28/98	520	RTA00000195AF.c.8.1	M00001678B:H01	0
1714	2/24/98	959	RTA00000340F.g.20.1	M00001609D:G10	4089
1715	2/24/98	960	RTA00000404F.J.19.2	M00001639B:H01	16196
1716	2/24/98	961	RTA00000420F.n.21.2	M00005259B:D12	0
1717	2/24/98	962	RTA00000404F.p.05.2	M00001652D:E09	1896
1718	2/24/98	963	RTA00000405F.I.07.1	M00001693C:E09	38636
1719	2/24/98	964	RTA00000423F.I.15.1	M00004075B:G09	11219
1720	2/24/98	965	RTA00000411F.n.06.1	M00003871D:E11	73886
1721	2/24/98	966	RTA00000422F.k.15.1	M00001594A:G09	19253
1722	2/24/98	967	RTA00000406F.h.16.1	M00003902B:D06	38618
1723	2/24/98	968	RTA00000419F.f.24.1	M00003841B:E06	18717
1724	2/24/98	969	RTA00000411F.d.18.1	M00001692A:G06	76063
1725	2/24/98	970	RTA00000414F.e.15.1	M00005236B:G03	0
1726	2/24/98	971	RTA00000411F.i.11.1	M00003837C:E05	66849
1727	2/24/98	972	RTA00000408F.d.15.1	M00001459B:C11	78467
1728	2/24/98	973	RTA00000339F.b.22.1	M00001373D:B03	6867
1729	2/24/98	974	RTA00000340F.h.07.1	M00001608D:D11	19254
1730	2/24/98	975	RTA00000411F.n.02.1	M00003870B:F04	78049
1731	2/24/98	976	RTA00000419F.b.17.1	M00003808D:D04	63261
1732	2/24/98	977	RTA00000350R.p.12.1	M00001657C:C07	0
			1.00		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appin			
1733	2/24/98	978	RTA00000130A.e.20.1	M00001606A:H09	79502
1734	2/24/98	979	RTA00000345F.b.17.1	M00001362C:H11	945
1735	2/24/98	980	RTA00000411F.i.13.1	M00003837C:F10	66138
1736	2/24/98	981	RTA00000420F.e.20.1	M00004110B:A07	64762
1737	2/24/98	982	RTA00000126A.p.23.2	M00001552A:F06	80915
1738	2/24/98	983	RTA00000423F.f.11.1	M00003809A:H04	0
1739	2/24/98	984	RTA00000406F.g.08.1	M00003880C:H03	37963
1740	2/24/98	985	RTA00000409F.a.08.1	M00001582D:B01	74978
1741	2/24/98	986	RTA00000406F.d.24.1	M00003876B:C05	37997
1742	2/24/98	987	RTA00000422F.b.22.1	M00004117B:A12	2368
1743	2/24/98	988	RTA00000407F.a.22.1	M00004081A:G01	15570
1744	2/24/98	989	RTA00000418F.i.12.1	M00001592A:E02	78971
1745	2/24/98	990	RTA00000121A.h.19.1	M00001471A:D04	80334
1746	2/24/98	991	RTA00000419F.b.10.1	M00001694C:G04	78566
1747	2/24/98	992	RTA00000406F.m.10.1	M00003914D:B02	38004
1748	2/24/98	993	RTA00000406F.o.05.1	M00003985B:G04	37894
1749	2/24/98	994	RTA00000408F.b.04.2	M00001455A:F04	39933
1750	2/24/98	995	RTA00000411F.k.04.1	M00003850D:A05	65407
1751	2/24/98	996	RTA00000423F.j.03.1	M00003903B:D03	5391
1752	2/24/98	997	RTA00000134A.I.9.1	M00001535A:D10	81814
1753	2/24/98	998	RTA00000341F.g.22.1	M00003914D:D10	0
1754	2/24/98	999	RTA00000418F.k.04.1	M00001637A:A03	75864
1755	2/24/98	1000	RTA00000351R.j.21.1	M00003859D:C05	31604
1756	2/24/98	1001	RTA00000413F.p.07.2	M00005102C:D03	0
1757	2/24/98	1002	RTA00000419F.p.18.1	M00004038D:G06	63002
1758	2/24/98	1003	RTA00000420F.k.08.2	M00005176C:C09	0
1759	2/24/98	1004	RTA00000419F.a.24.1	M00001680B:D02	79290
1760	2/24/98	1005	RTA00000339F.e.17.1	M00001397D:G08	7568
1761	2/24/98	1006	RTA00000129A.e.14.1	M00001587A:F08	80053
1762	2/24/98	1007	RTA00000404F.a.01.1	M00001589B:B08	19251
1763	2/24/98	1008	RTA00000414F.f.07.1	M00005259C:B05	0
1764	2/24/98	1009	RTA00000399F.o.24.1	M00001607D:A11	2272
1765	2/24/98	1010	RTA00000408F.n.16.2	M00001540C:B03	73720
1766	2/24/98	1011	RTA00000400F.c.04.1	M00001618A:F08	6445
1767	2/24/98	1012	RTA00000403F.g.06.1	M00001480C:A05	10505
1768	2/24/98	1013	RTA00000404F.b.18.1	M00001592A:H05	13669
1769	2/24/98	1014	RTA00000412F.I.14.1	M00004029B:F01	62792
1770	2/24/98	1015	RTA00000129A.b.6.2	M00001582A:H01	39111
1771	2/24/98	1016	RTA00000406F.n.12.1	M00003960A:G07	37517
1772	2/24/98	1017	RTA00000418F.e.03.1	M00001573B:G08	73442
1773	2/24/98	1018	RTA00000413F.j.21.1	M00004688A:A02	0
1774	2/24/98	1019	RTA00000403F.g.03.1	M00001479D:G06	23537
1775	2/24/98	1020	RTA00000412F.p.06.1	M00004038B:H10	65485
1776	2/24/98	1021	RTA00000419F.b.21.1	M00003809A:F01	65366
1777	2/24/98	1022	RTA00000401F.j.15.1	M00003901A:C09	3061
1778	2/24/98	1023	RTA00000404F.f.12.1	M00001611B:A05	39209
1779	2/24/98	1024	RTA00000351R.j.16.1	M00003857B:F07	64773
1780	2/24/98	1025	RTA00000118A.j.24.1	M00001450A:B03	18
1781	2/24/98	1026	RTA00000419F.f.18.1	M00003839D:E11	64047
1782	2/24/98	1027	RTA00000423F.i.16.1	M00003907D:A12	38604

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
1783	2/24/98	1028	RTA00000346F.d.12.1	M00001676B:B09	11777
1784	2/24/98	1029	RTA00000411F.f.04.1	M00003813A:G04	64526
1785	2/24/98	1030	RTA00000125A.c.17.1	M0000351371:G01	80619
1786	2/24/98	1031	RTA00000404F.g.08.1	M00001613D:H10	38980
1787	2/24/98	1032	RTA00000423F.c.13.1	M00001678A:A11	39059
1788	2/24/98	1033	RTA00000414F.e.19.1	M00005257C:E05	0
1789	2/24/98	1034	RTA00000124A.f.16.3	M00001536A:F11	47430
1790	2/24/98	1035	RTA00000404F.k.15.1	M00001634A:B04	18225
1791	2/24/98	1036	RTA00000339F.k.08.1	M00001439B:A10	8133
1792	2/24/98	1037	RTA00000339F.I.12.1	M00001450A:G11	7711
1793	2/24/98	1038	RTA00000406F.b.01.1	M00003867B:G07	39006
1794	2/24/98	1039	RTA00000407F.c.08.1	M00004118D:B05	37549
1795	2/24/98	1040	RTA00000348R.o.12.1	M00001433C:F10	2263
1796	2/24/98	1041	RTA00000403F.b.05.1	M00001455B:E07	74300
1797	2/24/98	1042	RTA00000339F.g.10.1	M00001400C:D02	6327
1798	2/24/98	1043	RTA00000423F.b.17.1	M00001662B:F06	8200
1799	2/24/98	1044	RTA00000419F.n.11.1	M00003977C:B03	66477
1800	2/24/98	1045	RTA00000408F.j.05.2	M00001483C:G06	73878
1801	2/24/98	1046	RTA00000346F.j.06.1	M00003879A:A02	5767
1802	2/24/98	1047	RTA00000419F.c.14.1	M00003819B:G01	65727
1803	2/24/98	1048	RTA00000413F.o.07.2	M00005100A:C01	0
1804	2/24/98	1049	RTA00000405F.f.05.1	M00001669C:D09	14359
1805	2/24/98	1050	RTA00000405F.f.05.2	M00001669C:D09	14359
1806	2/24/98	1051	RTA00000346F.h.24.1	M00003797A:C11	4379
1807	2/24/98	1052	RTA00000420F.b.02.1	M00004081A:A08	64013
1808	2/24/98	1053	RTA00000413F.b.24.1	M00004080A:F01	65117
1809	2/24/98	1054	RTA00000412F.d.08.1	M00003905C:B02	75328
1810	2/24/98	1055	RTA00000346F.a.04.1	M00001607B:C05	5382
1811	2/24/98	1056	RTA00000419F.m.18.1	M00003908C:G09	76014
1812	2/24/98	1057	RTA00000419F.l.24.1	M00003904D:B10	74628
1813	2/24/98	1058	RTA00000408F.c.06.1	M00001456D:E08	78619
1814	2/24/98	1059	RTA00000405F.h.21.2	M00001675C:D12	39072
1815	2/24/98	1060	RTA00000346F.g.02.1	M00003792A:B10	6901
1816	2/24/98	1061	RTA00000405F.g.05.2	M00001671D:E10	38987
1817	2/24/98	1062	RTA00000411F.f.20.1	M00003816C:C01	63501
1818	2/24/98	1063	RTA00000132A.n.7.1	M00001466A:F08	0
1819	2/24/98	1064	RTA00000420F.d.19.1	M00004105C:C08	43146
1820	1/28/98	595	RTA00000195R.a.06.1	M00001394A:E04	35265
1820	2/24/98	1065	RTA00000195R.a.06.1	M00001394A:E04	35265
1821	2/24/98	1066	RTA00000123A.f.2.1	M00001531A:H03	80379
1822	2/24/98	1067	RTA00000411F.j.11.1	M00003841D:F06	66154
1823	2/24/98	1068	RTA00000341F.f.03.1	M00003850A:F06	0
1824	2/24/98	1069	RTA00000346F.k.05.1	M00003904C:A08	0
1825	2/24/98	1070	RTA00000346F.n.22.1	M00004137A:D06	0
1826	2/24/98	1071	RTA00000404F.k.18.2	M00001635A:C06	5475
1827	2/24/98	1072	RTA00000419F.j.03.1	M00003868B:G06	77578
1828	2/24/98	1073	RTA00000418F.a.10.1	M00001475B:C04	15245
1829	2/24/98	1074	RTA00000423F.h.11.1	M00003867C:E11	38977
1830	2/24/98	1075	RTA00000413F.b.17.1	M00004078A:F07	21704
1831	2/24/98	1076	RTA00000423F.k.09.1	M00004035B:H09	26630
			170		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
1832	2/24/98	1077	RTA00000414F.e.11.1	M00005236B:A12	0
1833	2/24/98	1078	RTA00000423F.f.03.1	M00003829C:D10	63852
1834	2/24/98	1079	RTA00000419F.e.10.1	M00003833B:B03	63225
1835	2/24/98	1080	RTA00000351R.g.06.1	M00003771D:G05	0
1836	2/24/98	1081	RTA00000403F.d.02.1	M00001458D:D01	39224
1837	2/24/98	1082	RTA00000137A.o.22.1	M00001587A:D01	0
1838	2/24/98	1083	RTA00000418F.j.20.1	M00001634D:D04	77101
1839	2/24/98	1084	RTA00000403F.o.22.2	M00001583A:D01	25076
1840	2/24/98	1085	RTA00000403F.n.22.1	M00001578B:B05	26775
1841	2/24/98	1086	RTA00000403F.n.22.2	M00001578B:B05	26775
1842	2/24/98	1087	RTA00000401F.o.13.1	M00004040C:A01	3220
1843	2/24/98	1088	RTA00000339R.b.02.1	M00001344B:F12	0
1844	2/24/98	1089	RTA00000406F.j.21.1	M00003906A:H07	17822
1845	2/24/98	1090	RTA00000405F.g.22.1	M00001673C:A02	527
1846	2/24/98	1091	RTA00000356R.h.05.1	M00004107C:C02	35052
1847	2/24/98	1092	RTA00000125A.c.2.1	M00001542A:F06	40148
1848	2/24/98	1093	RTA00000340F.i.15.1	M00001629C:E07	26815
1849	2/24/98	1094	RTA00000405F.h.03.2	M00001673D:F10	20633
1850	2/24/98	1095	RTA00000345F.c.12.1	M00001376A:C05	23824
1851	2/24/98	1096	RTA00000421F.a.06.1	M00001589C:A11	2385
1852	2/24/98	1097	RTA00000412F.o.03.1	M00004033D:D07	65039
1853	2/24/98	1098	RTA00000409F.d.16.1	M00001590C:F10	76090
1854	2/24/98	1099	RTA00000400F.m.16.1	M00001660B:E04	3307
1855	2/24/98	1100	RTA00000414F.a.12.1	M00005210A:E06	0
1856	2/24/98	1101	RTA00000408F.j.17.2	M00001485B:H03	78935
1857	2/24/98	1102	RTA00000126A.j.15.2	M00001549A:H11	40425
1858	2/24/98	1103	RTA00000346F.a.16.1	M00001593A:B07	12082
1859	2/24/98	1104	RTA00000126A.b.10.1	M00001547A:F06	0
1860	2/24/98	1105	RTA00000340F.p.18.1	M00003751C:A04	287
1861	2/24/98	1106	RTA00000410F.b.17.1	M00001633C:H05	77458
1862	2/24/98	1107	RTA00000419F.l.22.1	M00003903D:C06	78444
1863	2/24/98	1108	RTA00000346F.c.16.1	M00001652B:G10	9579
1864	2/24/98	1109	RTA00000422F.f.22.1	M00001584A:G03	38703
1865	2/24/98	1110	RTA00000404F.j.24.1	M00001631D:G05	39067
1866	2/24/98	1111	RTA00000406F.m.20.1	M00003918C:C12	38038
1867	2/24/98	1112	RTA00000418F.c.05.1	M00001487B:F02	76475
1868	2/24/98	1113	RTA00000418F.p.21.1	M00001677D:F03	78068
1869	2/24/98	1114	RTA00000340F.f.22.1	M00001594B:F12	1720
1870	2/24/98	1115	RTA00000340F.i.08.1	M00001615B:F07	12005
1871	2/24/98	1116	RTA00000410F.o.04.1	M00001664D:F04	79018
1872	2/24/98	1117	RTA00000411F.l.16.1	M00003857C:G01	16122
1873	2/24/98	1118	RTA00000411F.j.03.1	M00003841C:F01	66263
1874	2/24/98	1119	RTA00000126A.k.24.1	M00001550A:F07	39428
1875	2/24/98	1120	RTA00000353R.I.23.1	M00001418B:F07	12531
1876	2/24/98	1121	RTA00000120A.m.10.3	M00001467A:B03	81376
1877	2/24/98	1122	RTA00000419F.f.16.1	M00003839D:E02	64679
1878	2/24/98	1123	RTA00000408F.c.23.1	M00001458C:D10	42261
1879	2/24/98	1124	RTA00000123A.h.22.1	M00001532A:C01	17124
1880	2/24/98	1125	RTA00000118A.n.5.1	M00001451A:C10	0
1881	2/24/98	1126	RTA00000136A.h.6.1	M00001550A:D09	81620

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Λppln			
1882	2/24/98	1127	RTA00000401F.g.22.1	M00003871A:G09	1147
1883	2/24/98	1128	RTA0000043F.a.02.3	M00003871A:G09	1147
1884	2/24/98	1129	RTA00000401F.m.07.1	M00001030B:A08	39210
1885	2/24/98	1130	RTA00000354R.p.01.1	M00003907D:F11 M00004104C:H12	2893 0
1886	2/24/98	1131	RTA00000418F.e.20.1	M00004104C:H12	73741
1887	2/24/98	1132	RTA00000119A.c.12.1	M00001453A:D08	4882
1888	2/24/98	1133	RTA00000405F.I.03.1	M00001493A:D08	38580
1889	2/24/98	1134	RTA00000418F.m.02.1	M00001650A:A12	74550
1890	2/24/98	1135	RTA00000346F.o.16.1	M00004358D:C02	176
1891	2/24/98	1136	RTA00000406F.c.05.1	M00003870A:H01	22077
1892	2/24/98	1137	RTA00000345F.d.03.1	M00001376B:A08	19230
1893	2/24/98	1138	RTA00000411F.k.21.1	M00003854B:D04	65349
1894	2/24/98	1139	RTA00000404F.h.20.1	M00001619B:A09	15564
1895	2/24/98	1140	RTA00000339F.c.05.1	M00001365A:H10	3908
1896	2/24/98	1141	RTA00000347F.f.08.1	M00003972D:H02	5948
1897	2/24/98	1142	RTA00000418F.i.06.1	M00001591B:B06	75151
1898	2/24/98	1143	RTA00000423F.a.03.1	M00001656B:D05	26796
1899	2/24/98	1144	RTA00000345F.j.09.1	M00001451B:F01	13
1900	2/24/98	1145	RTA00000423F.k.21.2	M00003984D:B08	37499
1901	2/24/98	1146	RTA00000347F.h.02.1	M00004072D:H12	562
1902	2/24/98	1147	RTA00000404F.c.18.1	M00001594A:C01	38982
1903	2/24/98	1148	RTA00000345F.d.23.1	M00001390D:E03	5862
1904	2/24/98	1149	RTA00000339F.b.02.1	M00001344B:F12	0
1905	2/24/98	1150	RTA00000411F.g.24.1	M00003825B:B11	65233
1906	2/24/98	1151	RTA00000405F.g.18.2	M00001672D:E08	5255
1907	2/24/98	1152	RTA00000405F.m.07.1	M00003809B:B02	37733
1908	2/24/98	1153	RTA00000411F.j.07.1	M00003841C:H11	66963
1909	2/24/98	1154	RTA00000403F.m.09.2	M00001575B:G01	26814
1910	2/24/98	1155	RTA00000353R.h.04.1	M00001375B:C06	17123
1911	2/24/98	1156	RTA00000408F.f.10.2	M00001476D:C05	75309
1912	2/24/98	1157	RTA00000422F.m.18.1	M00001647B:E04	23829
1913	2/24/98	1158	RTA00000405F.o.03.1	M00003829C:H05	37575
1914	2/24/98	1159	RTA00000413F.b.18.1	M00004078C:F04	39873
1915	2/24/98	1160	RTA00000400F.g.02.1	M00001638B:E03	1508
1916	2/24/98	1161	RTA00000346F.m.05.1	M00003983B:C08	5644
1917	2/24/98	1162	RTA00000408F.c.10.1	M00001458A:A11	18247
1918 1919	2/24/98	1163	RTA00000341F.b.14.1	M00003763A:C01	5992
1919	2/24/98	1164	RTA00000405F.m.21.1	M00003815C:C06	24218
1920	2/24/98	1165	RTA00000408F.c.08.1	M00001456D:G11	73473
1922	2/24/98 2/24/98	1166	RTA00000347F.h.01.1	M00004040A:G12	12043
1922	_	1167	RTA00000410F.c.06.1	M00001633D:H06	77784
1923	2/24/98 2/24/98	1168	RTA00000421F.b.06.1	M00001567A:B09	2113
1925	2/24/98 2/24/98	1169	RTA00000405F.b.08.1	M00001656B:E01	39182
1925	2/24/98	1170	RTA00000409F.1.24.1	M00001616C:A02	73174
1927	2/24/98 2/24/98	1171	RTA00000406F.j.06.1	M00003905A:F10	38952
1927	2/24/98 2/24/98	1172	RTA00000423F.h.03.1	M00003875D:D09	37903
1928	2/24/98 2/24/98	1173	RTA00000339R.b.07.1	M00001360A:G10	6826
1930	2/24/98	1174 1175	RTA00000121A.k.22.1	M00001507A:C05	79523
1930	2/24/98	1175	RTA00000414F.b.04.1	M00005212B:E01	0
.,,,	A=1 A=11 ≯ U	11/0	RTA00000411F.m.06.1	M00003858D:G06	24195
			170		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
1932	2/24/98	1177	RTA00000126A.b.9.1	M00001547A:F11	81279
1933	2/24/98	1178	RTA00000400F.f.11.1	M00001636A:E07	4088
1934	2/24/98	1179	RTA00000341F.o.12.1	M00004144A:F04	2883
1935	2/24/98	1180	RTA00000404F.I.05.1	M00001636D:F09	38671
1936	2/24/98	1181	RTA00000346F.f.14.1	M00003800B:F03	16998
1937	2/24/98	1182	RTA00000346F.d.21.1	M00001670B:G12	6641
1938	2/24/98	1183	RTA00000346F.j.21.1	M00003879D:A08	3095
1939	2/24/98	1184	RTA00000345F.h.08.1	M00001419D:C10	11393
1940	2/24/98	1185	RTA00000413F.b.20.1	M00004079D:G08	66063
1941	2/24/98	1186	RTA00000419F.p.10.1	M00004036D:B09	41448
1942	2/24/98	1187	RTA00000120A.c.19.1	M00001464A:B03	81016
1943	2/24/98	1188	RTA00000341F.o.18.1	M00004169D:B11	37189
1944	2/24/98	1189	RTA00000339F.o.18.1	M00001469B:B01	6641
1945	2/24/98	1190	RTA00000405F.g.02.2	M00001671B:G05	10567
1946	2/24/98	1191	RTA00000340F.i.05.1	M00001614B:E08	0
1947	2/24/98	1192	RTA00000406F.m.17.1	M00003918A:F09	0
1948	2/24/98	1193	RTA00000411F.k.14.1	M00003851A:C10	63987
1949	2/24/98	1194	RTA00000420F.e.05.1	M00004107D:E12	63908
1950	2/24/98	1195	RTA00000422F.e.23.1	M00001567D:B03	19246
1951	2/24/98	1196	RTA00000413F.I.18.1	M00004895D:G07	0
1952	2/24/98	1197	RTA00000128A.j.10.1	M00001560A:H06	80085
1953	2/24/98	1198	RTA00000412F.f.10.2	M00003959A:A03	65405
1954	2/24/98	1199	RTA00000401F.j.23.1	M00003901C:D03	570
1955	2/24/98	1200	RTA00000422F.k.17.1	M00001652A:A01	38955
1956	2/24/98	1201	RTA00000409F.m.02.1	M00001616C:A11	9157
1957	2/24/98	1202	RTA00000347F.h.10.1	M00004206A:E02	22779
1958	2/24/98	1203	RTA00000413F.e.10.1	M00004092C:B03	31033
1959	2/24/98	1204	RTA00000419F.I.02.1	M00003879A:C01	75736
1960	2/24/98	1205	RTA00000419F.k.05.1	M00003871C:E04	11757
1961	2/24/98	1206	RTA00000418F.b.20.1	M00001484D:G05	73560
1962	2/24/98	1207	RTA00000401F.j.21.1	M00003901B:F10	0
1963	2/24/98	1208	RTA00000347F.e.24.1	M00003823B:F07	8188
1964	2/24/98	1209	RTA00000408F.n.05.2	M00001539A:H02	77883
1965	2/24/98	1210	RTA00000419F.o.09.1	M00003987B:F08	66396
1966	2/24/98	1211	RTA00000399F.f.14.1	M00001487D:C11	11483
1967	2/24/98	1212	RTA00000349R.o.03.1	M00001551D:H07	23006
1968	2/24/98	1213	RTA00000135A.a.23.1	M00001537A:H05	27054
1969	2/24/98	1214	RTA00000339F.j.07.1	M00001428D:B10	5673
1970	2/24/98	1215	RTA00000422F.o.08.2	M00001659D:D03	26832
1971	2/24/98	1216	RTA00000404F.e.07.1	M00001608A:D03	9034
1972	2/24/98	1217	RTA00000410F.j.17.1	M00001642D:F02	72912
1973	2/24/98	1218	RTA00000418F.m.18.1	M00001653B:G10	76479
1974	2/24/98	1219	RTA00000347F.e.20.1	M00003771B:E05	39911
1975	2/24/98	1220	RTA00000419F.e.23.1	M00003834B:G04	65772
1976	2/24/98	1221	RTA00000403F.o.17.1	M00001582D:A02	23085
1977	2/24/98	1222	RTA00000423F.e.13.1	M00003848A:C09	10998
1978	2/24/98	1223	RTA00000347F.a.14.1	M00001429D:F11	7421
1979	2/24/98	1224	RTA00000122A.h.24.1	M00001514A:A12	48
1980	2/24/98	1225	RTA00000346F.j.13.1	M00003841C:E04	5337
1981	2/24/98	1226	RTA00000414F.c.12.1	M00005218A:F09	0

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appin			
1982	2/24/98	1227	RTA00000411F.g.05.1	M00003822D:B10	64664
1983	2/24/98	1228	RTA00000404F.h.10.1	M00001618A:A03	37148
1984	2/24/98	1229	RTA00000422F.n.14.1	M00001642C:G02	26787
1985	2/24/98	1230	RTA00000399F.j.14.1	M00001578C:F05	16942
1986	2/24/98	1231	RTA00000120A.m.13.3	M00001467A:C10	80608
1987	2/24/98	1232	RTA00000412F.i.03.1	M00003975D:C06	65617
1988	2/24/98	1233	RTA00000418F.I.02.1	M00001641C:C05	39316
1989	2/24/98	1234	RTA00000352R.c.20.1	M00003982A:B12	7339
1990	2/24/98	1235	RTA00000411F.j.04.1	M00003841C:F03	66219
1991	2/24/98	1236	RTA00000414F.b.06.1	M00005212C:C03	0
1992	2/24/98	1237	RTA00000414F.c.24.1	M00005229B:H04	o 0
1993	2/24/98	1238	RTA00000420F.g.09.1	M00004895B:E12	o
1994	2/24/98	1239	RTA00000340F.o.22.1	M00001673B:B07	7356
1995	2/24/98	1240	RTA00000404F.a.18.1	M00001590B:B02	36267
1996	2/24/98	1241	RTA00000408F.J.14.1	M00001530A:E10	12001
1997	2/24/98	1242	RTA00000405F.d.10.1	M00001661C:F11	39000
1998	2/24/98	1243	RTA00000404F.j.19.1	M00001630D:H10	0
1999	2/24/98	1244	RTA00000418F.h.23.1	M00001591A:B08	75153
2000	2/24/98	1245	RTA00000422F.k.22.1	M0000159771:B00	4098
2001	2/24/98	1246	RTA00000418F.j.11.1	M00001626C:E04	73853
2002	2/24/98	1247	RTA00000408F.o.13.1	M00001572A:B05	74895
2003	2/24/98	1248	RTA00000419F.o.07.1	M00003986C:E09	14059
2004	2/24/98	1249	RTA00000419F.n.17.1	M00003978D:G04	63186
2005	2/24/98	1250	RTA00000403F.f.15.1	M00003770D:G04	22768
2006	2/24/98	1251	RTA00000408F.d.03.1	M00001477D:110	22768
2007	2/24/98	1252	RTA00000400F.g.08.1	M00001130D:A02	1275
2008	2/24/98	1253	RTA00000346F.f.02.1	M00003772C:B12	62757
2009	2/24/98	1254	RTA00000341F.p.11.1	M00003172C:B12	02737
2010	2/24/98	1255	RTA00000413F.i.21.1	M00004118B:B04	64066
2011	2/24/98	1256	RTA00000401F.k.19.1	M00003903D:D10	799
2012	2/24/98	1257	RTA00000419F.h.21.1	M000033656C:B08	64828
2013	2/24/98	1258	RTA00000403F.p.05.2	M00001583D:B08	24528
2014	2/24/98	1259	RTA00000420F.I.19.2	M00005231A:H04	0
2015	2/24/98	1260	RTA00000422F.f.18.1	M00001583D:B08	24528
2016	2/24/98	1261	RTA00000404F.m.17.2	M00001643B:E05	0
2017	2/24/98	1262	RTA00000122A.h.4.1	M00001514A:G03	33576
2018	2/24/98	1263	RTA00000341F.i.22.1	M00003911A:F10	7 <b>8</b> 25
2019	2/24/98	1264	RTA00000345F.e.13.1	M00001392C:D05	4366
2020	2/24/98	1265	RTA00000340F.d.07.1	M00001532D:A06	0
2021	2/24/98	1266	RTA00000121A.a.2.1	M00001468A:H10	81843
2022	3/24/98	1	RTA00000527F.g.13.1	M00003845D:A04	36035
2023	3/24/98	2	RTA00000523F.d.19.1	M00003824A:A06	26489
2024	3/24/98	3	RTA00000528F.b.23.1	M00001479C:F10	1605
2025	3/24/98	4	RTA00000426F.h.11.1	M00003905B:H05	75479
2026	3/24/98	5	RTA00000426F.p.04.1	M00004029B:H08	34149
2027	3/24/98	6	RTA00000523F.1.10.1	M00005134B:E01	0
2028	3/24/98	7	RTA00000523F.o.20.1	M00005137B:E01	0
2029	3/24/98	8	RTA00000428F.b.06.1	M00005177B:1102	0
2030	3/24/98	9	RTA00000522F.b.22.1	M000032207:709	75181
2031	3/24/98	10	RTA00000527F.f.12.1	M00001373B:1112	5945
			174		2/73

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appin	Appln			
2032	3/24/98	11	RTA00000427F.I.11.1	M00005139A:F01	0
2033	3/24/98	12	RTA00000522F.a.23.1	M00001570C:A05	38613
2034	3/24/98	13	RTA00000528F.m.16.1	M00003845D:C03	4468
2035	3/24/98	14	RTA00000523F.b.02.1	M00003806C:A06	65163
2036	3/24/98	15	RTA00000425F.j.14.1	M00001639D:C12	73397
2037	3/24/98	16	RTA00000426F.m.22.1	M00003983A:G02	30002
2038	3/24/98	17	RTA00000527F.p.06.1	M00004029B:G10	1292
2039	3/24/98	18	RTA00000522F.e.16.1	M00001590A:C08	75283
2040	3/24/98	19	RTA00000527F.j.02.2	M00003856A:B07	4896
2041	3/24/98	20	RTA00000522F.o.06.1	M00001659D:A09	26860
2042	3/24/98	21	RTA00000523F.h.17.1	M00003852A:B03	65586
2043	3/24/98	22	RTA00000527F.k.15.1	M00003982A:G03	22688
2044	3/24/98	23	RTA00000522F.p.07.1	M00001670A:C11	76888
2045	3/24/98	24	RTA00000522F.n.08.1	M00001656A:D10	76343
2046	3/24/98	25	RTA00000425F.c.06.1	M00001585D:D11	78041
2047	3/24/98	26	RTA00000427F.b.23.1	M00003973D:F08	64297
2048	3/24/98	27	RTA00000527F.p.02.1	M00004029B:A01	36844
2049	3/24/98	28	RTA00000427F.d.08.1	M00003980C:E12	63967
2050	3/24/98	29	RTA00000524F.b.03.1	M00005212A:D10	0
2051	3/24/98	30	RTA00000426F.m.07.1	M00004028A:G03	63504
2052	3/24/98	31	RTA00000427F.c.10.1	M00003976B:E06	65478
2053	3/24/98	32	RTA00000424F.n.14.1	M00001584D:C11	73008
2054	3/24/98	33	RTA00000524F.b.21.1	M00005216C:B09	0
2055	3/24/98	34	RTA00000424F.m.15.1	M00001612D:F06	73759
2056	3/24/98	35	RTA00000426F.f.11.1	M00003823C:B01	63102
2057	3/24/98	36	RTA00000428F.a.16.1	M00005212D:F08	0
2058	3/24/98	37	RTA00000426F.f.20.1	M00003854C:F01	65134
2059	3/24/98	38	RTA00000528F.i.22.1	M00001661D:D05	2478
2060	3/24/98	39	RTA00000527F.c.23.1	M00003822C:A07	37742
2061	3/24/98	40	RTA00000426F.h.23.1	M00003911A:D12	75964
2062	3/24/98	41	RTA00000525F.b.17.1	M00004037B:A04	24715
2063	3/24/98	42	RTA00000527F.i.19.2	M00003853C:C06	38089
2064	3/24/98	43	RTA00000527F.p.07.1	M00004029C:B03	23343
2065 2066	3/24/98	44 45	RTA00000527F.p.17.1 RTA00000528F.m.12.1	M00004030C:D12 M00003842D:F08	17223 5768
2067	3/24/98 3/24/98	46	RTA00000528F.iii.12.1 RTA00000523F.c.09.1	M00003842D:F08	47389
2068	3/24/98	40 47	RTA00000523F.c.09.1 RTA00000523F.e.18.1	M00003813C.D08	62898
2069	3/24/98	48	RTA00000523F.E.18.1 RTA00000527F.k.21.1	M00003829D.A11 M00003982B:H10	36051
2009	3/24/98	46 49	RTA00000527F.n.22.1	M00003982B:H10	24175
2070	3/24/98	50	RTA00000527F.k.15.1	M00004027A:A08 M00001652D:G06	76866
2072	3/24/98	51	RTA00000522F.n.02.1	M00001655D:E08	74959
2073	3/24/98	52	RTA00000522F.II.02.1	M00004927C:H11	0
2073	3/24/98	53	RTA00000525F.c.17.1	M00004927C:H11 M00004040A:C08	38160
2075	3/24/98	54	RTA00000325F.f.17.1	M00001653D:G07	32635
2076	3/24/98	55	RTA00000528F.e.23.1	M00001593B:D10	19242
2077	3/24/98	56	RTA00000522F.n.16.1	M00001573B:D10	26769
2078	3/24/98	57	RTA000003221.ii.10.1 RTA00000427F.c.20.1	M00001037B:1110	26527
2079	3/24/98	58	RTA00000527F.k.06.1	M000039707:E07	12469
2080	3/24/98	59	RTA00000327F.n.14.1	M00003961B:B12	0
2081	3/24/98	60	RTA00000523F.i.06.1	M00003855A:A01	66341
·	2,2 / 0		155		

SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
2082	3/24/98	61	RTA00000427F.f.21.1	M00004118B:C11	36853
2083	3/24/98	62	RTA00000427F.j.19.1	M00004113B:C11	41395
2084	3/24/98	63	RTA00000522F.b.01.1	M0000467771:G12 M00001570C:B02	75691
2085	3/24/98	64	RTA000003221.0.01.1 RTA00000424F.i.24.1	M00001570C:B02 M00001596A:G06	79101
2086	3/24/98	65	RTA000004241.1.24.1 RTA00000523F.c.01.1	M00001340A:G00 M00003810A:A02	65710
2087	3/24/98	66	RTA00000323F.b.01.1	M00003810A:A02 M00003971C:F09	66891
2088	3/24/98	67	RTA00000427F.e.03.1	M00003371C:F09 M00003825D:F01	25560
2089	3/24/98	68	RTA00000527F.e.03.1 RTA00000523F.n.04.1	M00003823D.F01 M00005138B:D12	0
2090	3/24/98	69	RTA00000523F.ii.04.1 RTA00000522F.j.15.2	M00003138B.D12 M00001651C:G12	76535
2090	3/24/98	70	RTA00000522F.J.15.2 RTA00000525F.e.07.1	M00001031C:G12	
2091	3/24/98	70 71		M00004113C:G03	38147
2092	3/24/98	72	RTA00000527F.j.20.2 RTA00000426F.f.19.1	M00003860D:E06	37603
2093	3/24/98	73		M00005834C:C09	66701
2095	3/24/98	74	RTA00000524F.b.12.1 RTA00000527F.d.19.1		0
2095	3/24/98	7 <del>4</del> 75		M00003825B:F10	486
2090	3/24/98	75 76	RTA00000523F.i.22.1 RTA00000523F.I.18.1	M00003857A:E12	64688
2097	3/24/98	76 77		M00005134D:A06	0
2098	3/24/98	78	RTA00000425F.i.17.1	M00001633A:F11	43213
2100	3/24/98	78 79	RTA00000427F.o.05.1	M00004958B:D01	0
2100	3/24/98 3/24/98	79 80	RTA00000523F.I.15.1	M00005134C:E11	0
2101	3/24/98	81	RTA00000425F.p.12.1	M00001638C:G01	73219
2102	3/24/98 3/24/98	82	RTA00000427F.j.07.1	M00004105A:B10	64819
2103	3/24/98	82 83	RTA00000523F.h.15.1	M00003851C:F09	65137
2104	3/24/98	83 84	RTA00000527F.i.05.2	M00003851C:B06	37481
2103	3/24/98		RTA00000527F.k.18.1	M00003982B:C10	11332
2100		85	RTA00000427F.m.21.1	M00004900C:E11	0
2107	3/24/98 3/24/98	86	RTA00000523F.k.01.1	M00003966C:F03	41437
2108	3/24/98	87	RTA00000425F.j.11.1	M00001637C:H12	76667
2110	3/24/98	88 89	RTA00000424F.b.22.4	M00001530A:F11	72971
2111	3/24/98 3/24/98	90	RTA00000527F.n.02.1	M00003986C;G11	24190
2112	3/24/98 3/24/98	90 91	RTA00000525F.a.03.1	M00004031D:F05	36786
2112	3/24/98		RTA00000527F.i.21.2	M00003855A:F01	37490
2113		92	RTA00000424F.a.24.4	M00001448D:E11	73951
2114	3/24/98	93 94	RTA00000522F.k.14.1	M00001652D:G02	74280
2116	3/24/98		RTA00000522F.n.05.1	M00001655D:H11	73260
2117	3/24/98 3/24/98	95	RTA00000523F.c.18.1	M00003817C:A10	66179
2118		96	RTA00000523F.b.13.1	M00003809B:A03	66330
	3/24/98	97	RTA00000522F.j.14.2	M00001651C:D11	73123
2119 2120	3/24/98	98	RTA00000527F.p.16.1	M00004030C:C02	23798
	3/24/98	99	RTA00000425F.c.20.1	M00001626D:A02	73581
2121	3/24/98	100	RTA00000424F.i.21.1	M00001596A:E07	73482
2122	3/24/98	101	RTA00000523F.j.19.1	M00003966B:D02	65910
2123	3/24/98	102	RTA00000522F.g.19.1	M00001595C:A01	78119
2124	3/24/98	103	RTA00000424F.b.22.1	M00001530A:F11	72971
2125	3/24/98	104	RTA00000527F.b.18.1	M00003810D:H09	37469
2126	3/24/98	105	RTA00000526F.d.01.1	M00004104B:A02	4468
2127	3/24/98	106	RTA00000424F.j.14.1	M00001592B:B02	74311
2128	3/24/98	107	RTA00000523F.n.20.1	M00005174D:H02	0
2129	3/24/98	108	RTA00000525F.e.16.1	M00004117B:G01	36837
2130	3/24/98	109	RTA00000424F.a.01.4	M00001575A:D05	43214
2131	3/24/98	110	RTA00000522F.d.08.1	M00001578B:A06	74284

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
2132	3/24/98	111	RTA00000425F.d.08.1	M00001631A:F06	74350
2133	3/24/98	112	RTA00000523F.n.12.1	M00005173C:A02	0
2134	-3/24/98	113	RTA00000527F.g.07.1	M00003840C:C02	37488
2135	3/24/98	114	RTA00000524F.a.23.1	M00005211C:E09	0
2136	3/24/98	115	RTA00000525F.b.05.1	M00004034C:F05	21116
2137	3/24/98	116	RTA00000425F.n.05.1	M00001647D:G07	73965
2138	3/24/98	117	RTA00000523F.d.18.1	M00003822B:G01	64072
2139	3/24/98	118	RTA00000525F.a.02.1	M00004031C:H10	37454
2140	3/24/98	119	RTA00000523F.p.06.1	M00005177D:F09	0
2141	3/24/98	120	RTA00000426F.h.09.1	M00003905B:G03	78797
2142	3/24/98	121	RTA00000427F.n.02.1	M00004900D:B10	0
2143	3/24/98	122	RTA00000523F.o.12.1	M00005177A:B06	0
2144	3/24/98	123	RTA00000427F.g.05.1	M00004069C:C08	63138
2145	3/24/98	124	RTA00000424F.m.12.1	M00001586C:H07	77675
2146	3/24/98	125	RTA00000424F.a.01.1	M00001575A:D05	43214
2147	3/24/98	126	RTA00000527F.m.05.1	M00003985A:C01	17240
2148	3/24/98	127	RTA00000523F.n.10.1	M00005140D:G09	0
2149	3/24/98	128	RTA00000428F.c.02.1	M00005229D:H07	0
2150	3/24/98	129	RTA00000527F.p.18.1	M00004030D:B06	31635
2151	3/24/98	130	RTA00000427F.h.12.1	M00004092C:D08	36894
2152	3/24/98	131	RTA00000523F.c.15.1	M00003813D:G06	36935
2153	3/24/98	132	RTA00000427F.k.17.1	M00004101A:F07	64965
2154	3/24/98	133	RTA00000425F.f.04.1	M00001607A:B06	24633
2155	3/24/98	134	RTA00000424F.c.14.3	M00001476D:A09	76614
2156	3/24/98	135	RTA00000522F.k.10.2	M00001652D:B09	77619
2157	3/24/98	136	RTA00000424F.m.22.1	M00001614C:E11	72943
2158	3/24/98	137	RTA00000527F.h.17.1	M00003848D:G02	37799
2159	3/24/98	138	RTA00000527F.c.22.1	M00003822B:G12	37496
2160	3/24/98	139	RTA00000425F.k.22.1	M00001633C:E12	78123
2161	3/24/98	140	RTA00000424F.m.14.1	M00001612D:D12	77491
2162	3/24/98	141	RTA00000522F.k.19.1	M00001653A:A05	32625
2163	3/24/98	142	RTA00000523F.i.18.1	M00003856B:C04	64463
2164	3/24/98	143	RTA00000425F.j.22.1	M00001633B:E03	73882
2165	3/24/98	144	RTA00000527F.g.23.1	M00003846C:F08	37538
2166	3/24/98	145	RTA00000426F.m.24.1	M00003981A:A07	63943
2167	3/24/98	146	RTA00000527F.i.17.2	M00003853B:C08	37539
2168	3/24/98	147	RTA00000425F.d.21.1	M00001631B:H04	78920
2169	3/24/98	148	RTA00000427F.n.18.1	M00004891D:C11	0
2170	3/24/98	149	RTA00000424F.d.04.3	M00001478A:F12	76505
2171	3/24/98	150	RTA00000424F.d.04.1	M00001478A:F12	76505
2172	3/24/98	151	RTA00000427F.c.12.1	M00003976B:H07	66995
2173	3/24/98	152	RTA00000425F.d.07.1	M00001631A:F12	43197
2174	3/24/98	153	RTA00000527F.I.13.1	M00003983C:F10	36904
2175	3/24/98	154	RTA00000522F.h.13.1	M00001596C:F09	40823
2176	3/24/98	155	RTA00000424F.I.19.1	M00001609C:A12	75454
2177	3/24/98	156	RTA00000525F.b.22.1	M00004037C:D07	16679
2178	3/24/98	157	RTA00000523F.g.10.1	M00003848B:E07	40694
2179	3/24/98	158	RTA00000427F.a.06.1	M00004036A:A11	66550
2180	3/24/98	159	RTA00000525F.c.19.1	M00004040B:F07	38159
2181	3/24/98	160	RTA00000523F.f.06.1	M00003833D:H08	62871
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SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
2102	Appln	Appln	DT 4 000004045 1 10 1	14000014040	
2182	3/24/98	161	RTA00000424F.h.10.1	M00001485C:G06	72925
2183	3/24/98	162	RTA00000522F.a.12.1	M00001567A:H05	33515
2184	3/24/98	163	RTA00000522F.h.01.1	M00001595C:E05	75010
2185	3/24/98	164	RTA00000523F.n.17.1	M00005174D:B02	0
2186	3/24/98	165	RTA00000425F.e.21.1	M00001629D:D10	77203
2187	3/24/98	166	RTA00000523F.f.07.1	M00003833D:H10	62799
2188	3/24/98	167	RTA00000424F.i.20.1	M00001596A:D01	44010
2189	3/24/98	168	RTA00000424F.j.12.1	M00001594C:E05	73827
2190	3/24/98	169	RTA00000425F.f.05.1	M00001607A:D10	24090
2191	3/24/98	170	RTA00000523F.d.12.1	M00003822B:D08	64888
2192	3/24/98	171	RTA00000523F.e.10.1	M00003829A:F03	62878
2193	3/24/98	172	RTA00000425F.f.11.1	M00001656C:C04	79275
2194	3/24/98	173	RTA00000426F.m.18.1	M00003986D:G07	62974
2195	3/24/98	174	RTA00000424F.b.21.4	M00001530A:B02	24686
2196	3/24/98	175	RTA00000528F.d.18.1	M00001582C:E01	2684
2197	3/24/98	176	RTA00000522F.g.15.1	M00001595B:G07	76536
2198	3/24/98	177	RTA00000522F.n.12.1	M00001656A:H12	74117
2199	3/24/98	178	RTA00000428F.a.12.1	M00005179B:H02	0
2200	3/24/98	179	RTA00000424F.d.10.3	M00001530D:A11	73110
2201	3/24/98	180	RTA00000523F.k.02.1	M00004687A:C03	0
2202	3/24/98	181	RTA00000523F.b.06.1	M00003808A:F09	28736
2203	3/24/98	182	RTA00000524F.b.17.1	M00005214B:A06	0
2204	3/24/98	183	RTA00000527F.c.04.1	M00003813C:H08	23090
2205	3/24/98	184	RTA00000524F.b.18.1	M00005214B:D11	0
2206	3/24/98	185	RTA00000527F.h.21.1	M00003850C:G09	37630
2207	3/24/98	186	RTA00000425F.c.07.1	M00001585D:F03	76042
2208	3/24/98	187	RTA00000428F.b.23.1	M00005231D:H10	0
2209	3/24/98	188	RTA00000525F.c.15.1	M00004040A:A07	7692
2210	3/24/98	189	RTA00000424F.d.22.3	M00001448B:G07	76189
2211	3/24/98	190	RTA00000523F.h.12.1	M00003851C:D07	65745
2212	3/24/98	191	RTA00000522F.g.22.1	M00001595C:B12	77504
2213	3/24/98	192	RTA00000523F.m.02.1	M00005134D:H03	0
2214	3/24/98	193	RTA00000428F.b.12.1	M00005231C:B07	0
2215	3/24/98	194	RTA00000522F.j.12.2	M00001651C:A04	74341
2216	3/24/98	195	RTA00000523F.i.08.1	M00003855A:C12	65099
2217	3/24/98	196	RTA00000523F.f.12.1	M00003840A:C10	63751
2218	3/24/98	197	RTA00000425F.j.20.1	M00001633B:A12	26760
2219	3/24/98	198	RTA00000523F.o.05.1	M00005175B:H04	0
2220	3/24/98	199	RTA00000427F.f.24.1	M00004076D:B09	64572
2221	3/24/98	200	RTA00000527F.a.13.1	M00003805D:E06	37740
2222	3/24/98	201	RTA00000427F.n.17.1	M00004891D:A07	0
2223	3/24/98	202	RTA00000528F.j.11.1	M00001669B:C12	1070
2224	3/24/98	203	RTA00000427F.p.10.2	M00005102C:F09	0
2225	3/24/98	204	RTA00000424F.a.09.4	M00001575C:C11	77833
2226	3/24/98	205	RTA00000426F.h.12.1	M00003905C:F12	78093
2227	3/24/98	206	RTA00000525F.f.07.1	M00004119A:A06	37500
2228	3/24/98	207	RTA00000424F.j.07.1	M00001596B:C11	79211
2229	3/24/98	208	RTA00000424F.m.10.1	M00001586C:E06	34251
2230	3/24/98	209	RTA00000427F.g.16.1	M00004069A:E12	63011
2231	3/24/98	210	RTA00000522F.g.06.1	M00001594D:G11	78221

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
2232	3/24/98	211	RTA00000424F.h.03.1	M00001487C:G09	74447
2233	3/24/98	212	RTA00000424F.n.06.1	M00001613A:D02	74737
2234	3/24/98	213	RTA00000427F.c.22.1	M00003978A:E09	63990
2235	3/24/98	214	RTA00000424F.k.12.1	M00001610C:B07	77666
2236	3/24/98	215	RTA00000425F.f.02.1	M00001607A:A01	76982
2237	3/24/98	216	RTA00000427F.h.11.1	M00004092C:B12	26494
2238	3/24/98	217	RTA00000425F.j.16.1	M00001639D:F02	75631
2239	3/24/98	218	RTA00000427F.i.19.1	M00004102C:D01	64206
2240	3/24/98	219	RTA00000427F.f.17.1	M00004115A:B12	63803
2241	3/24/98	220	RTA00000522F.o.18.1	M00001669B:H06	76366
2242	3/24/98	221	RTA00000427F.j.22.1	M00004097D:B05	66367
2243	3/24/98	222	RTA00000426F.p.10.1	M00004033D:C05	65845
2244	3/24/98	223	RTA00000522F.m.02.1	M00001654C:G07	76834
2245	3/24/98	224	RTA00000527F.k.09.1	M00003981C:F05	213
2246	3/24/98	225	RTA00000527F.d.09.1	M00003824A:G11	10848
2247	3/24/98	226	RTA00000425F.e.15.1	M00001608D:F11	75921
2248	3/24/98	227	RTA00000427F.i.11.1	M00004097C:H08	26635
2249	3/24/98	228	RTA00000523F.o.14.1	M00005177A:H09	0
2250	3/24/98	229	RTA00000424F.n.13.1	M00001584D:B06	74942
2251	3/24/98	230	RTA00000424F.g.14.1	M00001572A:B06	74879
2252	3/24/98	231	RTA00000426F.e.17.1	M00003810C:B06	64089
2253	3/24/98	232	RTA00000527F.i.13.2	M00003852B:G04	2924
2254	3/24/98	233	RTA00000426F.f.13.1	M00003851A:A06	65384
2255	3/24/98	234	RTA00000524F.c.16.1	M00005218D:G10	0
2256	3/24/98	235	RTA00000427F.g.19.1	M00004087A:B05	64611
2257	3/24/98	236	RTA00000527F.o.01.1	M00004027A:D06	19088
2258	3/24/98	237	RTA00000522F.c.01.1	M00001576A:C11	74938
2259	3/24/98	238	RTA00000522F.g.17.1	M00001595B:G10	76486
2260	3/24/98	239	RTA00000523F.j.17.1	M00003966B:A04	63610
2261	3/24/98	240	RTA00000522F.n.14.1	M00001657C:C11	73410
2262	3/24/98	241	RTA00000527F.o.12.1	M00004028B:G08	688
2263	3/24/98	242	RTA00000523F.e.20.1	M00003829D:F03	65164
2264	3/24/98	243	RTA00000424F.c.15.3	M00001476D:F12	73533
2265	3/24/98	244	RTA00000426F.p.09.1	M00004033D:B07	66665
2266	3/24/98	245	RTA00000522F.p.09.1	M00001670A:F09	75204
2267	3/24/98	246	RTA00000426F.m.21.1	M00003983A:F06	64915
2268	3/24/98	247	RTA00000425F.j.21.1	M00001633B:B11	77373
2269	3/24/98	248	RTA00000527F.I.14.1	M00003983D:A09	14935
2270	3/24/98	249	RTA00000523F.h.21.1	M00003853B:C10	41440
2271	3/24/98	250	RTA00000427F.h.24.1	M00004091B:H09	65193
2272	3/24/98	251	RTA00000425F.f.24.1	M00001656D:C04	40841
2273	3/24/98	252	RTA00000425F.m.03.1	M00001642D:G08	76045
2274	3/24/98	253	RTA00000426F.m.08.1	M00004030B:A12	63781
2275	3/24/98	254	RTA00000523F.d.24.1	M00003824D:D08	64799
2276	3/24/98	255	RTA00000523F.c.14.1	M00003813D:C02	66015
2277	3/24/98	256	RTA00000523F.b.20.1	M00003809C:H07	66492
2278	3/24/98	257	RTA00000522F.h.07.1	M00001595D:C11	75149
2279	3/24/98	258	RTA00000527F.g.10.1	M00003845A:E12	37820
2280	3/24/98	259	RTA00000528F.m.04.1	M00003830D:H11	10815
2281	3/24/98	260	RTA00000524F.b.02.1	M00005212A:A02	0

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
2202	Appln	Appln			
2282	3/24/98	261	RTA00000427F.i.22.1	M00004104D:B05	63199
2283	3/24/98	262	RTA00000424F.k.03.1	M00001590D:B04	21289
2284	3/24/98	263	RTA00000527F.n.07.1	M00003986D:H12	15939
2285	3/24/98	264	RTA00000425F.e.09.1	M00001608C:G04	75550
2286	3/24/98	265	RTA00000427F.h.02.1	M00004085B:G01	63652
2287	3/24/98	266	RTA00000426F.f.16.1	M00003813B:F02	65613
2288	3/24/98	267	RTA00000425F.i.21.1	M00001635B:B02	75305
2289	3/24/98	268	RTA00000427F.k.19.1	M00004103B:B07	62851
2290	3/24/98	269	RTA00000427F.p.02.2	M00005100B:D02	0
2291	3/24/98	270	RTA00000426F.g.16.1	M00003814B:C01	41446
2292	3/24/98	271	RTA00000527F.I.05.1	M00003983A:D02	13016
2293	3/24/98	272	RTA00000426F.m.02.1	M00004034C:C06	66237
2294	3/24/98	273	RTA00000424F.a.02.4	M00001575A:D06	78806
2295	3/24/98	274	RTA00000523F.h.06.1	M00003851B:D03	28745
2296	3/24/98	275	RTA00000522F.1.22.1	M00001654C:D10	75801
2297	3/24/98	276	RTA00000427F.h.19.1	M00004092D:B11	63047
2298	3/24/98	277	RTA00000427F.e.08.1	M00003974D:E01	47387
2299	3/24/98	278	RTA00000522F.g.21.1	M00001595C:A09	77310
2300	3/24/98	279	RTA00000528F.b.03.1	M00001455A:D10	2078
2301	3/24/98	280	RTA00000522F.g.20.1	M00001595C:A05	77688
2302	3/24/98	281	RTA00000527F.k.20.1	M00003982B:H07	17148
2303	3/24/98	282	RTA00000427F.h.22.1	M00004108C:E01	64547
2304	3/24/98	283	RTA00000425F.k.20.1	M00001633C:A08	74048
2305	3/24/98	284	RTA00000524F.b.19.1	M00005216B:D02	0
2306	3/24/98	285	RTA00000522F.b.07.1	M00003270D:E05	7 <b>86</b> 34
2307	3/24/98	286	RTA00000426F.g.19.1	M00003858B:G02	63672
2308	3/24/98	287	RTA00000525F.d.19.1	M00003030B:002	36860
2309	3/24/98	288	RTA00000427F.I.04.1	M00005136D:C01	0
2310	3/24/98	289	RTA00000427F.d.10.1	M00003130D:C01 M00003978C:A12	40685
2311	3/24/98	290	RTA00000427F.I.03.1	M00005376C:742	0
2312	3/24/98	291	RTA0000523F.o.23.1	M00005177C:G04	0
2313	3/24/98	292	RTA00000424F.a.05.4	M00003177E:G04	77976
2314	3/24/98	293	RTA00000525F.c.02.1	M00001979B:C01 M00004038A:E05	14618
2315	3/24/98	294	RTA00000424F.a.05.1	M00004036A:E03	77976
2316	3/24/98	295	RTA00000522F.1.15.1	M00001575B:C01	74691
2317	3/24/98	296	RTA00000425F.e.02.1	M00001634B:A01 M00001625C:F10	
2318	3/24/98	297	RTA00000425F.c.11.1	M00001023C:F10 M00004039C:E02	76143
2319	3/24/98	298	RTA00000527F.e.08.1	M00004039C:E02 M00003826B:B04	37895
2320	3/24/98	299	RTA00000527F.c.14.1	M00003826B:B04 M00001577A:A03	19015
2321	3/24/98	300	RTA00000322F.c.14.1 RTA00000424F.m.08.1		75449
2322	3/24/98	301	RTA00000424F.ff.08.1 RTA00000527F.f.18.1	M00001584A:A07	19402
2323	3/24/98	302		M00003830D:B11	37577
2324	3/24/98	303	RTA00000427F.p.04.2 RTA00000522F.a.06.1	M00005100B:H07	0
2325	3/24/98	304	RTA00000525F.d.13.1	M00001567A:C11	73662
2326	3/24/98	304		M00004110C:E03	349
2327	3/24/98	303 306	RTA00000523F.n.16.1	M00005173D:H02	0
2328	3/24/98		RTA00000522F.d.23.1	M00001579D:F02	73868
2328		307	RTA00000427F.p.03.2	M00005100B:G11	0
	3/24/98	308	RTA00000424F.k.23.1	M00001614A:B10	31061
2330	3/24/98	309	RTA00000523F.j.10.1	M00003860B:G09	63384
2331	3/24/98	310	RTA00000527F.p.08.1	M00004029C:F02	36013
			100		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
2332	3/24/98	311	RTA00000428F.b.02.1	M00005214D:D10	0
2333	3/24/98	312	RTA00000426F.f.17.1	M00003811C:C02	66334
2334	3/24/98	313	RTA00000523F.j.21.1	M00003966C:A12	36925
2335	3/24/98	314	RTA00000522F.e.09.1	M00001589D:A01	32599
2336	3/24/98	315	RTA00000427F.n.19.1	M00004891D:E07	0
2337	3/24/98	316	RTA00000523F.h.16.1	M00003851D:H11	66031
2338	3/24/98	317	RTA00000428F.a.01.1	M00004897D:G05	0
2339	3/24/98	318	RTA00000523F.a.01.1	M00001671C:F11	74923
2340	3/24/98	319	RTA00000523F.p.15.1	M00005178B:H01	0
2341	3/24/98	320	RTA00000427F.j.06.1	M00004102D:B05	63676
2342	3/24/98	321	RTA00000424F.m.04.1	M00001609C:G05	79017
2343	3/24/98	322	RTA00000523F.i.17.1	M00003856B:A12	65779
2344	3/24/98	323	RTA00000524F.c.12.1	M00005218B:D09	0
2345	3/24/98	324	RTA00000523F.o.09.1	M00005176A:C12	0
2346	3/24/98	325	RTA00000525F.c.18.1	M00004040B:C05	24208
2347	3/24/98	326	RTA00000527F.e.09.1	M00003826B:E11	37521
2348	3/24/98	327	RTA00000424F.j.08.1	M00001596B:D09	73972
2349	3/24/98	328	RTA00000523F.n.01.1	M00005137A:E01	0
2350	3/24/98	329	RTA00000527F.c.09.1	M00003817C:G06	64859
2351	3/24/98	330	RTA00000523F.d.23.1	M00003824C:A10	63633
2352	3/24/98	331	RTA00000528F.k.10.1	M00001678C:F09	1981
2353	3/24/98	332	RTA00000523F.c.03.1	M00003810B:B11	36913
2354	3/24/98	333	RTA00000427F.k.21.1	M00004090D:F12	62880
2355	3/24/98	334	RTA00000427F.n.11.1	M00004960B:A09	0
2356	3/24/98	335	RTA00000427F.d.09.1	M00003980C:F12	66486
2357	3/24/98	336	RTA00000426F.n.17.1	M00004039D:B10	66572
2358	3/24/98	337	RTA00000525F.e.08.1	M00004115C:H04	24193
2359	3/24/98	338	RTA00000523F.e.15.1	M00003829C:E08	7919
2360	3/24/98	339	RTA00000426F.m.03.1	M00004034C:E08	66480
2361	3/24/98	340	RTA00000424F.h.06.1	M00001485C:D07	77552
2362	3/24/98	341	RTA00000425F.d.06.1	M00001631A:D03	77660
2363	3/24/98	342	RTA00000427F.e.12.1	M00003959C:G06	62813
2364	3/24/98	343	RTA00000527F.c.11.1	M00003817D:D12	37484
2365	3/24/98	344	RTA00000425F.p.15.1	M00001638C:H07	31680
2366	3/24/98	345	RTA00000426F.n.23.1	M00004030C:A08	18176
2367	3/24/98	346	RTA00000522F.m.19.1	M00001655C:C07	41544
2368	3/24/98	347	RTA00000522F.a.05.1	M00001567A:C04	32611
2369	3/24/98	348	RTA00000427F.i.09.1	M00004097C:E03	65916
2370	3/24/98	349	RTA00000424F.j.09.1	M00001596B:H05	74387
2371	3/24/98	350	RTA00000424F.n.11.1	M00001582C:C04	73874
2372	3/24/98	351	RTA00000523F.I.03.1	M00004927A:A02	0
2373	3/24/98	352	RTA00000527F.e.13.1	M00003826C:F05	37588
2374	3/24/98	353	RTA00000428F.a.18.1	M00005214C:A09	0
2375	3/24/98	354	RTA00000425F.j.19.1	M00001639D:G06	77925
2376	3/24/98	355	RTA00000522F.g.12.1	M00001595A:E07	78783
2377	3/24/98	356	RTA00000523F.a.07.1	M00001693A:H06	75804
2378	3/24/98	357	RTA00000425F.e.19.1	M00001629D:B10	73409
2379	3/24/98	358	RTA00000425F.n.19.1	M00001638B:C08	78324
2380	3/24/98	359	RTA00000523F.d.21.1	M00003824B:C09	33424
2381	3/24/98	360	RTA00000523F.j.03.1	M00003860A:A08	64535
			404		

	SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
	2382	3/24/98	761	RTA00000523F.p.08.1	M00005178A:A07	0
	2383	3/24/98	362	RTA00000523F.p.09.1	M00005178A:A07 M00005178A:A08	0
	2384	3/24/98	363	RTA000003231.p.03.1 RTA00000427F.k.07.1	M00003178A.A08 M00004099A:F11	_
	2385	3/24/98	364	RTA00000427F.R.07.1		63742
	2386	3/24/98	365	RTA00000523F.III.07.1 RTA00000527F.k.16.1	M00005136A:D10	0
	2387	3/24/98	366	RTA00000527F.k.10.1 RTA00000522F.a.17.1	M00003982B:B06	1015
	2388	3/24/98	367	RTA00000322F.a.17.1 RTA00000527F.l.19.1	M00001567C:B08	79032
	2389	3/24/98	368	RTA00000327F.i.19.1 RTA00000424F.i.11.1	M00003983D:E08	36856
	2390	3/24/98	369	RTA00000424F.I.11.1 RTA00000524F.c.08.1	M00001485D:A05	41569
	2391	3/24/98	370	RTA00000324F.c.08.1 RTA00000424F.d.19.3	M00005217C:C01	0
	2392	3/24/98	370		M00001448B:A07	73180
	2392	3/24/98	371	RTA00000522F.j.09.2	M00001650D:F11	78522
	2394	3/24/98	372	RTA00000424F.m.24.1	M00001614C:G07	77045
	2395	3/24/98	373 374	RTA00000522F.j.19.2	M00001652B:D06	76224
	2396	3/24/98	374 375	RTA00000528F.f.10.1	M00001596C:G05	3600
	2390 2397	3/24/98	376	RTA00000427F.p.19.2	M00004895C:G05	0
	2397 2398	3/24/98	370 377	RTA00000525F.b.21.1	M00004037C:D04	9486
	2398 2399	3/24/98		RTA00000527F.j.12.2	M00003857C:E05	37503
	2399 2400	3/24/98	378 379	RTA00000522F.g.11.1	M00001595A:D12	75432
	2400 2401	3/24/98		RTA00000522F.k.02.2	M00001652C:B09	77622
	2401 2402		380	RTA00000427F.e.13.1	M00003959D:A04	66080
	2402 2403	3/24/98	381	RTA00000426F.f.18.1	M00003854C:C02	63271
		3/24/98	382	RTA00000427F.a.12.1	M00003982C:H10	63377
	2404 2405	3/24/98	383	RTA00000424F.b.23.4	M00001530A:H05	77322
		3/24/98	384	RTA00000527F.p.03.1	M00004029B:A06	5940
	2406 2407	3/24/98	385	RTA00000426F.f.12.1	M00003823C:C04	19096
	2407 2408	3/24/98	386	RTA00000523F.I.16.1	M00005134C:G04	0
	2408 2409	3/24/98	387	RTA00000427F.f.02.1	M00004118D:A11	36822
	2409 2410	3/24/98	388	RTA00000526F.d.17.1	M00004235A:A12	2757
	2410 2411	3/24/98	389	RTA00000424F.i.15.1	M00001596A:A02	78043
		3/24/98	390	RTA00000524F.a.11.1	M00005210D:C09	0
	2412 2413	3/24/98	391	RTA00000522F.m.03.1	M00001654C:G09	79194
	2413 2414	3/24/98	392	RTA00000522F.a.20.1	M00001567C:E07	74070
		3/24/98	393	RTA00000424F.b.15.4	M00001539B:B10	74958
	2415	3/24/98	394	RTA00000527F.g.14.1	M00003845D:B02	37532
	2416 2417	3/24/98	395	RTA00000522F.d.06.1	M00001578B:A02	74809
	2417 2418	3/24/98	396	RTA00000528F.g.05.2	M00001615C:E07	3770
		3/24/98	397	RTA00000427F.e.10.1	M00003974D:H07	64599
	2419	3/24/98	398	RTA00000527F.c.16.1	M00003821A:H09	22908
	2420 2421	3/24/98	399	RTA00000524F.c.07.1	M00005217A:G10	0
		3/24/98	400	RTA00000523F.f.17.1	M00003840B:E08	63984
	2422	3/24/98	401	RTA00000525F.c.16.1	M00004040A:B04	38209
	2423	3/24/98	402	RTA00000527F.p.24.1	M00004031B:A06	36832
	2424	3/24/98	403	RTA00000425F.n.17.1	M00001636A:H12	78304
	2425	3/24/98	404	RTA00000522F.b.18.1	M00001573B:A06	3460
	2426	3/24/98	405	RTA00000425F.e.07.1	M00001608C:D02	75992
	2427	3/24/98	406	RTA00000523F.o.07.1	M00005176A:A05	0
	2428	3/24/98	407	RTA00000523F.h.08.1	M00003851B:E01	62893
	2429	3/24/98	408	RTA00000522F.o.10.1	M00001660D:E05	78798
	2430	3/24/98	409	RTA00000425F.I.10.1	M00001638A:C08	26893
4	2431	3/24/98	410	RTA00000427F.f.16.1	M00004119D:H06	64122
				100		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appin	Appin			
2432	3/24/98	411	RTA00000424F.n.12.1	M00001582C:G02	41589
2433	3/24/98	412	RTA00000425F.i.11.1	M00001664B:F06	21716
2434	3/24/98	413	RTA00000425F.i.10.1	M00001664B:E08	78736
2435	3/24/98	414	RTA00000426F.m.12.1	M00004030B:D08	63740
2436	3/24/98	415	RTA00000527F.g.12.1	M00003845C:D04	37746
2437	3/24/98	416	RTA00000527F.i.12.2	M00003852B:D11	0
2438	3/24/98	417	RTA00000524F.b.10.1	M00005213C:A01	0
2439	3/24/98	418	RTA00000425F.i.18.1	M00001633A:G10	42255
2440	3/24/98	419	RTA00000428F.b.22.1	M00005231D:B09	0
2441	3/24/98	420	RTA00000424F.j.13.1	M00001594C:H03	74485
2442	3/24/98	421	RTA00000523F.i.10.1	M00003855B:B09	64876
2443	3/24/98	422	RTA00000527F.f.03.1	M00003829A:B08	17788
2444	3/24/98	423	RTA00000427F.p.06.2	M00005102C:C01	0
2445	3/24/98	424	RTA00000424F.k.10.1	M00001592D:H02	73232
2446	3/24/98	425	RTA00000522F.i.07.2	M00001649A:E10	78377
2447	3/24/98	426	RTA00000424F.k.21.1	M00001614A:A04	73197
2448	3/24/98	427	RTA00000522F.b.08.1	M00001570D:E06	26915
2449	3/24/98	428	RTA00000522F.I.08.1	M00001654A:E08	78781
2450	3/24/98	429	RTA00000525F.a.14.1	M00004033B:C02	37566
2451	3/24/98	430	RTA00000424F.g.08.1	M00001482C:F09	74928
2452	3/24/98	431	RTA00000425F.I.09.1	M00001638A:B04	75251
2453	3/24/98	432	RTA00000522F.o.20.1	M00001669C:B09	74853
2454	3/24/98	433	RTA00000527F.j.04.2	M00003856A:G04	11809
2455	3/24/98	434	RTA00000522F.c.11.1	M00001576C:H02	31064
2456	3/24/98	435	RTA00000523F.c.13.1	M00003813D:B12	40668
2457	3/24/98	436	RTA00000427F.i.21.1	M00004102C:F03	65540
2458	3/24/98	437	RTA00000427F.n.10.1	M00004960B:A08	0
2459	3/24/98	438	RTA00000522F.h.02.1	M00001595C:E09	74947
2460	3/24/98	439	RTA00000522F.g.10.1	M00001595A:C07	74294
2461	3/24/98	440	RTA00000523F.o.22.1	M00005177C:B04	0
2462	3/24/98	441	RTA00000528F.g.22.2	M00001630C:F09	920
2463	3/24/98	442	RTA00000425F.d.14.1	M00001629A:H09	13417
2464	3/24/98	443	RTA00000425F.k.16.1	M00001640A:F05	75282
2465	3/24/98	444	RTA00000525F.b.09.1	M00004035B:F05	23472
2466	3/24/98	445	RTA00000522F.j.08.2	M00001650D:D10	76613
2467	3/24/98	446	RTA00000425F.f.20.1	M00001653D:H07	74071
2468	3/24/98	447	RTA00000523F.f.19.1	M00003840B:F05	34169
2469	3/24/98	448	RTA00000425F.j.18.1	M00001639D:G12	75561
2470	3/24/98	449	RTA00000426F.m.04.1	M00004028A:B10	36865
2471	3/24/98	450	RTA00000527F.g.21.1	M00003846B:C05	36028
2472	3/24/98	451	RTA00000527F.i.15.2	M00003852C:F07	14235
2473	3/24/98	452	RTA00000525F.a.22.1	M00004033D:G06	36848
2474	3/24/98	453	RTA00000522F.p.22.1	M00001671B:F02	73322
2475	3/24/98	454	RTA00000424F.d.12.2	M00001530D:E06	74342
2476	3/24/98	455	RTA00000424F.g.24.1	M00001487C:A11	79156
2477	3/24/98	456	RTA00000427F.a.10.1	M00004038B:D01	65370
2478	3/24/98	457	RTA00000426F.h.20.1	M00003905A:H11	23187
2479	3/24/98	458	RTA00000424F.d.12.3	M00001530D:E06	74342
2479	3/24/98	459	RTA00000425F.c.03.1	M00001585D:B12	74643
2480	3/24/98	460	RTA00000423F.f.16.1	M00001383B:B12	26522
₽40 I	2127170	100	7.7.10000002271.110.1		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
2482	Appln 3/24/98	Appln 461	DTA00000407F C15 1	1400004110D + 0=	
2483	3/24/98		RTA00000427F.f.15.1	M00004119D:A07	66734
2484		462	RTA00000427F.p.13.2	M00004695B:E04	0
2485	3/24/98	463	RTA00000523F.p.16.1	M00005179D:B03	0
2485	3/24/98	464	RTA00000522F.p.18.1	M00001671A:H06	76376
2486	3/24/98	465	RTA00000528F.d.04.1	M00001570D:E07	2395
	3/24/98	466	RTA00000427F.d.06.1	M00003980B:C06	33446
2488	3/24/98	467	RTA00000528F.h.02.2	M00001632C:D08	1701
2489	3/24/98	468	RTA00000524F.a.18.1	M00005211A:E09	0
2490	3/24/98	469	RTA00000522F.e.20.1	M00001590B:H10	26770
2491	3/24/98	470	RTA00000427F.p.24.2	M00004897D:F03	0
2492	3/24/98	471	RTA00000528F.c.11.1	M00001486D:D12	1701
2493	3/24/98	472	RTA00000522F.g.18.1	M00001595B:H11	73226
2494	3/24/98	473	RTA00000523F.o.21.1	M00005177C:A01	0
2495	3/24/98	474	RTA00000522F.h.05.1	M00001595C:H11	73358
2496	3/24/98	475	RTA00000427F.i.06.1	M00004097B:D03	41450
2497	3/24/98	476	RTA00000425F.n.16.1	M00001636A:C02	18265
2498	3/24/98	477	RTA00000527F.I.21.1	M00003983D:H02	36439
2499	3/24/98	478	RTA00000527F.p.09.1	M00004029C:F05	7694
2500	3/24/98	479	RTA00000527F.I.23.1	M00003984A:B06	36018
2501	3/24/98	480	RTA00000424F.d.17.3	M00001455A:E11	73958
2502	3/24/98	481	RTA00000523F.j.02.1	M00003857A:H10	62853
2503	2/24/98	1132	RTA00000119A.c.12.1	M00001453A:D08	4882
2504	2/24/98	6	RTA00000119A.j.15.1	M00001460A:E11	79623
2505	2/24/98	1041	RTA00000403F.b.05.1	M00001455B:E07	74300
2506	2/24/98	994	RTA00000408F.b.04.2	M00001455A:F04	39933
2507	2/24/98	401	RTA00000132A.c.11.1	M00001454A:G03	87278
2508	2/24/98	535	RTA00000119A.g.7.1	M00001454A:F11	83580
2509	2/24/98	867	RTA00000339F.1.21.1	M00001455D:D11	9781
2510	2/24/98	62	RTA00000339F.n.10.1	M00001453B:F08	13719
2511	2/24/98	380	RTA00000403F.b.19.1	M00001456B:A06	22327
2512	1/28/98	288	RTA00000181AR.i.06.3	M00001452A:C07	19119
2512	2/24/98	198	RTA00000339R.I.14.1	M00001452A:C07	19119
2513	1/28/98	288	RTA00000181AR.i.06.3	M00001452A:C07	19119
2513	2/24/98	198	RTA00000339R.I.14.1	M00001452A:C07	19119
2514	2/24/98	264	RTA00000345F.j.08.1	M00001451B:A04	16731
2515	2/24/98	1125	RTA00000118A.n.5.1	M00001451A:C10	0
2516	2/24/98	229	RTA00000345F.i.09.1	M00001450A:D08	27250
2517	2/24/98	670	RTA00000131A.i.6.1	M00001450A:B08	0
2518	2/24/98	892	RTA00000339F.m.17.1	M00001453B:H12	20854
2519	2/24/98	1123	RTA00000408F.c.23.1	M00001458C:D10	42261
2520	2/24/98	680	RTA00000345F.e.11.1	M00001391C:C04	4392
2521	2/24/98	644	RTA00000119A.j.9.1	M00001460A:B12	82060
2522	2/24/98	972	RTA00000408F.d.15.1	M00001459B:C11	78467
2523	2/24/98	1081	RTA00000403F.d.02.1	M00001458D:D01	39224
2524	2/24/98	231	RTA00000408F.d.06.1	M00001458D:C11	78997
2525	2/24/98	663	RTA00000403F.b.12.1	M00001455D:A06	78775
2526	2/24/98	856	RTA00000408F.d.02.1	M00001458D:A01	79169
2527	2/24/98	743	RTA00000345F.i.08.1	M00001449D:G10	0
2528	2/24/98	1162	RTA00000408F.c.10.1	M00001458A:A11	18247
2529	2/24/98	841	RTA00000119A.i.8.1	M00001457A:G12	82593

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
2530	2/24/98	677	RTA00000119A.h.24.1	M00001457A:C05	82266
2531	2/24/98	750	RTA00000403F.c.05.1	M00001456C:C11	74935
2532	2/24/98	751	RTA00000422F.i.02.1	M00001456C:B12	76436
2533	2/24/98	920	RTA00000403F.b.24.1	M00001456B:G01	78838
2534	2/24/98	1251	RTA00000408F.d.03.1	M00001458D:A02	22768
2535	2/24/98	450	RTA00000118A.a.23.1	M00001395A:H02	3500
2536	2/24/98	85	RTA00000339F.k.22.1	M00001427C:D01	5556
2537	2/24/98	684	RTA00000339F.k.20.1	M00001426D:D12	6662
2538	2/24/98	129	RTA00000118A.d.24.1	M00001416A:H02	81488
2539	2/24/98	397	RTA00000118A.d.17.1	M00001416A:D09	81921
2540	2/24/98	158	RTA00000348R.j.16.1	M00001410A:D07	7005
2541	2/24/98	1025	RTA00000118A.j.24.1	M00001450A:B03	18
2542	2/24/98	1005	RTA00000339F.e.17.1	M00001397D:G08	7568
2543	2/24/98	1040	RTA00000348R.o.12.1	M00001433C:F10	2263
2544	2/24/98	746	RTA00000345F.e.02.1	M00001395A:E03	0
2545	2/24/98	517	RTA00000118A.a.2.1	M00001395A:A12	38067
2546	2/24/98	1065	RTA00000195R.a.06.1	M00001394A:E04	35265
2546	1/28/98	595	RTA00000195R.a.06.1	M00001394A:E04	35265
2547	1/28/98	595	RTA00000195R.a.06.1	M00001394A:E04	35265
2547	2/24/98	1065	RTA00000195R.a.06.1	M00001394A:E04	35265
2548	1/28/98	675	RTA00000179AR.b.21.3	M00001392C:D05	4366
2548	2/24/98	1264	RTA00000345F.e.13.1	M00001392C:D05	4366
2549	1/28/98	562	RTA00000196F.j.12.1	M00001396A:H03	19294
2550	2/24/98	1042	RTA00000339F.g.10.1	M00001400C:D02	6327
2551	2/24/98	706	RTA00000403F.a.09.1	M00001448B:H05	77820
2552	2/24/98	823	RTA00000119A.k.1.1	M00001460A:H11	81282
2553	2/24/98	703	RTA00000339F.n.05.1	M00001449D:B01	39648
2554	2/24/98	787	RTA00000345F.i.24.1	M00001449C:C05	0
2555	2/24/98	68	RTA00000339F.n.03.1	M00001449B:B03	0
2556	2/24/98	440	RTA00000403F.a.18.1	M00001448D:F12	75726
2557	2/24/98	815	RTA00000403F.a.17.1	M00001448D:E12	13686
2558	2/24/98	275	RTA00000353R.j.24.1	M00001428B:D01	23089
2559	2/24/98	902	RTA00000403F.a.10.1	M00001448C:E11	73952
2560	2/24/98	1214	RTA00000339F.j.07.1	M00001428D:B10	5673
2561	2/24/98	378	RTA00000403F.a.07.1	M00001448B:F09	73559
2562	2/24/98	473	RTA00000403F.a.05.1	M00001448A:E11	18808
2563	2/24/98	128	RTA00000403F.a.04.1	M00001448A:B12	23529
2564	2/24/98	227	RTA00000347F.c.06.1	M00001444D:C01	18846
2565	2/24/98	35	RTA00000339F.i.13.1	M00001434A:B10	5970
2566	2/24/98	442	RTA00000347F.b.02.1	M00001450A:A02	39304
2567	2/24/98	288	RTA00000403F.a.11.1	M00001448C:F10	73109
2568	2/24/98	853	RTA00000408F.j.13.2	M00001485B:D10	42275
2569	2/24/98	249	RTA00000119A.j.10.1	M00001460A:C10	79646
2570	2/24/98	634	RTA00000418F.c.04.1	M00001487B:A11	41587
2571	2/24/98	110	RTA00000408F.k.14.1	M00001486B:E12	73856
2572	2/24/98	894	RTA00000408F.k.12.1	M00001486B:D07	77246
2573	2/24/98	395	RTA00000408F.j.19.2	M00001485C:C08	73752
2574	2/24/98	509	RTA00000349R.g.10.1	M00001495B:B08	5777
2575	2/24/98	426	RTA00000408F.j.15.2	M00001485B:F05	74759
2576	2/24/98	101	RTA00000121A.m.2.1	M00001507A:A11	81064

SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
2577	2/24/98	330	RTA00000403F.i.04.1	M00001485B:D09	9020
2578	2/24/98	647	RTA000004031.1.04.1	M00001485A:C05	8930
2579	2/24/98	569	RTA000004181.b.25.1	M00001483A:C03	28767
2580	2/24/98	236	RTA00000403F.h.12.1		39241
2581	2/24/98	707	RTA00000403F.h.11.1	M00001483C:G09	15205
2582	2/24/98	869	RTA00000403F.h.07.1	M00001483B:D04	39219
2583	2/24/98	1101	RTA00000403F.ji.17.2	M00001482D:H11	26856
2584	2/24/98	344	RTA00000403F.m.15.2	M00001485B:H03	78935
2585	2/24/98	768	RTA00000403F.III.13.2 RTA00000121A.k.5.1	M00001575D:D12	26901
2586	2/24/98	1174	RTA00000121A.k.3.1 RTA00000121A.k.22.1	M00001507A:E04	17530
2587	2/24/98	184	RTA00000121A.k.22.1 RTA00000133A.j.13.1	M00001507A:C05	79523
2588	2/24/98	1230	RTA00000133A.J.13.1 RTA00000399F.j.14.1	M00001507A:B02	16846
2589	2/24/98	304	RTA00000399F.J.14.1 RTA00000403F.n.18.2	M00001578C:F05	16942
2590	2/24/98	938	RTA00000403F.ii.18.2 RTA00000403F.ii.23.1	M00001577D:H06	8811
2591	2/24/98	1131	RTA00000403F.1.23.1 RTA00000418F.e.20.1	M00001487B:E10	11364
2592	2/24/98	651		M00001576C:G05	73741
2593	2/24/98	312	RTA00000403F.g.11.1	M00001481A:H08	24238
2594	2/24/98	800	RTA00000399F.i.08.1 RTA00000403F.m.12.1	M00001575D:B10	38927
2595	2/24/98	1017	RTA00000403F.III.12.1 RTA00000418F.e.03.1	M00001575D:A02	16933
2596	2/24/98	269	RTA00000418F.e.03.1 RTA00000422F.e.08.1	M00001573B:G08	73442
2597	2/24/98	1247	RTA00000422F.e.08.1 RTA00000408F.o.13.1	M00001573A:E01	39020
2598	2/24/98	847	RTA00000408F.0.13.1 RTA00000403F.1.11.1	M00001572A:B05	74895
2599	2/24/98	910	RTA00000403F.f.11.1 RTA00000418F.f.03.1	M00001571D:F05	25073
2600	2/24/98	244	RTA00000478F.1.03.1 RTA00000120A.g.23.1	M000014654-E10	78911
2601	2/24/98	1189	RTA00000120A.g.23.1 RTA00000339F.o.18.1	M00001465A:E10	81189
2602	2/24/98	1266	RTA00000339F.0.18.1 RTA00000121A.a.2.1	M00001469B:B01	6641
2603	2/24/98	414	RTA00000121A.a.2.1 RTA00000120A.p.18.1	M00001468A:H10	81843
2604	2/24/98	96	RTA00000120A.p.18.1 RTA00000120A.n.19.3	M00001468A:C05 M00001467A:H07	6478
2605	2/24/98	1231	RTA00000120A.m.13.3	M00001467A:H07 M00001467A:C10	80004
2606	2/24/98	134	RTA00000120A.iii.13.3 RTA00000408F.i.08.2	M00001487A.C10 M00001482A:H05	80608
2607	2/24/98	410	RTA000004081 .1.08.2 RTA00000120A.h.5.1	M00001482A:H03 M00001465A:G06	75811
2608	2/24/98	403	RTA00000120A.ii.3.1 RTA00000403F.d,22.1	M00001463A:G08 M00001473A:A07	80344
2609	2/24/98	183	RTA000004031.d.22.1 RTA00000120A.g.18.1	M00001475A:A07 M00001465A:C12	10692
2610	2/24/98	810	RTA00000120A.g.18.1	M00001465A:C12	81255
2611	2/24/98	71	RTA00000120A.d.24.1	M00001463A:B12	80736 5085
2612	2/24/98	490	RTA00000120A.d.15.1	M00001464A:B02	80533
2613	2/24/98	736	RTA00000120A.c.7.1	M00001404A:B02 M00001462A:D03	80985
2614	2/24/98	724	RTA00000119A.m.17.1	M00001402A:D03	79536
2615	2/24/98	1063	RTA000001137A.m.7.1	M00001461A:F08	0
2616	2/24/98	74	RTA00000408F.e.22.2	M00001400A:108	26930
2617	1/28/98	656	RTA00000178AR.h.22.3	M00001470B:108 M00001376B:A08	19230
2617	1/28/98	657	RTA00000178AR.h.22.2	M00001376B:A08	19230
2617	2/24/98	1137	RTA00000345F.d.03.1	M00001376B:A08	19230
2618	2/24/98	1012	RTA00000403F.g.06.1	M00001370B:A08	19230
2619	2/24/98	419	RTA00000408F.h.08.1	M00001480A:D03	74575
2620	2/24/98	871	RTA00000403F.f.23.1	M00001480A:D03	39223
2621	2/24/98	638	RTA00000418F.b.09.1	M00001479C.E01 M00001478B:H08	39223 19700
2622		· 770	RTA00000418F.6.05.1	M00001478B.H08 M00001477B:E02	5266
2623	2/24/98	549	RTA00000121A.h.18.1	M00001477B.E02 M00001471A:B04	16376
2624	2/24/98	660	RTA00000421A.ft.18.11 RTA00000408F.e.24.2	M00001471A:B04 M00001476C:C11	75002
_	, •		106	1100001770C.CTT	13002

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appin	Appln			
2625	2/24/98	144	RTA00000349R.f.15.1	M00001472A:D08	75097
2626	2/24/98	774	RTA00000403F.e.24.1	M00001476B:D10	16432
2627	2/24/98	268	RTA00000403F.e.23.1	M00001476A:D11	9626
2628	2/24/98	715	RTA00000418F.b.01.1	M00001475C:G11	76040
2629	2/24/98	1073	RTA00000418F.a.10.1	M00001475B:C04	15245
2630	2/24/98	100	RTA00000339F.o.23.1	M00001473C:D09	7801
2631	2/24/98	756	RTA000003571.0.23.1	M000011732:D09	38718
2632	2/24/98	915	RTA00000408F.f.14.2	M00001476D:F03	73024
2633	1/28/98	389	RTA00000181AR.k.2.2	M00001470D:103	0
2633	1/28/98	286	RTA00000181AR.k.2.3	M00001153C:A11	0
2634	1/28/98	565	RTA00000191AF.c.10.1	M00001199C:A11	40422
2635	1/28/98	449	RTA00000131AF.m.22.3	M00003767D:F09	9283
2635	1/28/98	450	RTA00000181AF.m.21.3	M00001455D:F09	9283
2636	1/28/98	449	RTA00000181AF.m.22.3	M00001455D:F09	9283
2636	1/28/98	450	RTA00000181AF.m.21.3	M00001455D:F09	9283
2637	1/28/98	449	RTA00000181AF.m.22.3	M00001455D:F09	9283
2637	1/28/98	450	RTA00000181AF.m.21.3	M00001455D:F09	9283
2638	1/28/98	449	RTA00000181AF.m.22.3	M00001455D:F09	9283
2638	1/28/98	450	RTA00000181AF.m.21.3	M00001455D:F09	9283
2639	1/28/98	390	RTA00000197AR.f.07.1	M00001457C:C11	19261
2639	1/28/98	184	RTA00000197AR.f.07.1	M00001457C:C11	19261
2640	1/28/98	598	RTA00000197A1.1.7.1	M00001457C:C11 M00001454B:D08	13154
2641	1/28/98	184	RTA000001971.E.TO.1	M00001454B:D08	19261
2641	1/28/98	390	RTA00000197AR.f.07.1	M00001457C:C11	19261
2642	1/28/98	286	RTA00000197AR.I.07.1 RTA00000181AR.k.2.3	M00001457C:C11	0
2642	1/28/98	389	RTA00000181AR.k.2.2	M00001453C:A11	0
2643	1/28/98	667	RTA00000197AF.d.16.1	M00001453C:A11	23505
2644	1/28/98	679	RTA00000197AF.d.11.1	M00001452A:E07	27260
2645	1/28/98	664	RTA00000197A1.d.11.7	M00001431C:E01 M00001449C:H12	86432
2646	1/28/98	594	RTA00000193R.a.23.11 RTA00000181AR.e.04.3	M00001448A:G09	11825
2647	1/28/98	405	RTA00000197AF.b.24.1	M00001446A:G09	23171
2648	1/28/98	572	RTA00000197AT.0.24.1 RTA00000181AF.1.16.2	M00001440C:B07	13532
2649	1/28/98	590	RTA00000181AT.1.10.2 RTA00000190AF.d.2.1	M00001494B:E03	2444
2650	1/28/98	675	RTA00000179AR.b.21.3	M00003300B:112 M00001392C:D05	4366
2650	2/24/98	1264	RTA00000177AR.0.21.3 RTA00000345F.e.13.1	M00001392C:D05	4366
2651	1/28/98	486	RTA00000190AR.p.22.2	M00001372C:D03	16368
2652	1/28/98	701	RTA00000199AF.o.10.1	M00003974C:E04	0
2653	1/28/98	704	RTA00000199AF.o.12.1	M00003974C:E04 M00003972D:C09	3438
2654	1/28/98	469	RTA00000190AF.n.2.1	M00003972B:C07	5650
2655	1/28/98	612	RTA00000197AR.e.22.1	M0000370574:E03	78758
2656	1/28/98	640	RTA00000197AR.C.22.1	M00001490A:H02	5015
2657	1/28/98	539	RTA00000190AL.1.3.1	M0000330371:1104 M00001445B:E04	9560
2658	1/28/98	431	RTA00000197AK.b.15.1	M00001445B:E04 M00003905C:G10	8275
2659	1/28/98	747	RTA00000199AF.c.6.1	M00003904D:D10	4780
2660	1/28/98	584	RTA00000190Ar.c.03.1	M00003904C:A08	0
2660	2/24/98	1069	RTA00000190Ak.c.03.1	M00003904C:A08	0
2661	1/28/98	584	RTA00000190AR.c.03.1	M00003904C:A08	0
2661	2/24/98	1069	RTA00000190AR.c.03.1 RTA00000346F.k.05.1	M00003904C:A08	0
2662	1/28/98	577	RTA00000190AF.a.24.2	M00003904C.A08	0
2663	1/28/98	639	RTA00000190AF.a.24.2	M00003901B:A03	6006
2003	1/20/70	037	107	1110000000010.007	0000

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
0444	Appln	Appln			
2664	1/28/98	649	RTA00000190AR.I.19.2	M00003946A:H10	88204
2665	1/28/98	488	RTA00000179AR.1.22.4	M00001405B:E09	4314
2665	1/28/98	481	RTA00000179AR.I.22.2	M00001405B:E09	4314
2666	1/28/98	721	RTA00000180AF.c.4.1	M00001417B:C04	5415
2667	1/28/98	744	RTA00000196F.m.4.1	M00001413A:F03	7958
2668	1/28/98	569	RTA00000196AF.I.23.1	M00001412A:E04	12052
2669	1/28/98	707	RTA00000179AF.p.15.1	M00001411D:F05	5622
2670	1/28/98	599	RTA00000179AF.o.5.1	M00001408D:D04	6172
2671	1/28/98	420	RTA00000181AF.c.11.1	M00001445D:A06	4769
2672	1/28/98	500	RTA00000179AR.m.07.5	M00001405D:D11	0
2673	1/28/98	609	RTA00000196AF.n.05.1	M00001418B:F07	12531
2673	2/24/98	1120	RTA00000353R.J.23.1	M00001418B:F07	12531
2674	1/28/98	481	RTA00000179AR.1.22.2	M00001405B:E09	4314
2674	1/28/98	488	RTA00000179AR.I.22.4	M00001405B:E09	4314
2675	1/28/98	481	RTA00000179AR.I.22.2	M00001405B:E09	4314
2675	1/28/98	488	RTA00000179AR.1.22.4	M00001405B:E09	4314
2676	1/28/98	481	RTA00000179AR.I.22.2	M00001405B:E09	4314
2676	1/28/98	488	RTA00000179AR.I.22.4	M00001405B:E09	4314
2677	1/28/98	636	RTA00000196F.k.20.1	M00001402B:F12	6324
2678	1/28/98	691	RTA00000195F.a.10.1	M00001401C:H03	6803
2679	2/24/98	161	RTA00000418F.n.22.1	M00001659D:B05	79062
2680	1/28/98	611	RTA00000196F.I.13.2	M00001408A:H04	0
2681	1/28/98	535	RTA00000196AF.n.19.1	M00001423D:D12	6881
2682	1/28/98	413	RTA00000200F.a.12.1	M00004031D:B05	16751
2683	1/28/98	580	RTA00000197F.a.12.1	M00001438B:B09	7895
2684	1/28/98	681	RTA00000180AF.I.04.2	M00001432D:F05	11159
2685	1/28/98	568	RTA00000196AF.p.01.2	M00001430A:A02	87143
2686	1/28/98	736	RTA00000196AF.o.13.1	M00001428B:A09	0
2687	1/28/98	438	RTA00000180AR.g.03.4	M00001425A:C11	9024
2687	1/28/98	95	RTA00000180AF.g.3.1	M00001425A:C11	9024
2688	1/28/98	514	RTA00000196AF.n.02.1	M00001417D:A04	39260
2689	1/28/98	741	RTA00000196AF.n.22.1	M00001424B:H04	9572
2690	1/28/98	609	RTA00000196AF.n.05.1	M00001418B:F07	12531
2690	2/24/98	1120	RTA00000353R.1.23.1	M00001418B:F07	12531
2691	1/28/98	462	RTA00000196AF.n.17.1	M00001423D:A09	12477
2692	1/28/98	477	RTA00000180AR.e.22.2	M00001423A:G05	7714
2693	1/28/98	445	RTA00000196AF.n.13.1	M00001422C:F12	8396
2694	1/28/98	696	RTA00000180AR.d.16.3	M00001419D:C10	11393
2694	2/24/98	1184	RTA00000345F.h.08.1	M00001419D:C10	11393
2695	1/28/98	696	RTA00000180AR.d.16.3	M00001419D:C10	11393
2695	2/24/98	1184	RTA00000345F.h.08.1	M00001419D:C10	11393
2696	1/28/98	541	RTA00000197AR.b.16.1	M00001445C:A08	0
2697	1/28/98	95	RTA00000180AF.g.3.1	M00001425A:C11	9024
2697	1/28/98	438	RTA00000180AR.g.03.4	M00001425A:C11	9024
2698	1/28/98	536	RTA00000193AR.a.2.3	M00004216D:D03	0
2699	1/28/98	588	RTA00000191AF.b.4.1	M00003983C:F03	14936
2700	1/28/98	401	RTA00000195F.e.04.1	M00004465B:D04	6731
2701	2/24/98	91	RTA00000355R.e.15.1	M00004316A:G09	22639
2701	1/28/98	410	RTA00000201F.a.20.1	M00004316A:G09	22639
2702	1/28/98	410	RTA00000201F.a.20.1	M00004316A:G09	22639

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
2702	2/24/98	91	RTA00000355R.e.15.1	M00004316A:G09	22639
2703	1/28/98	716	RTA00000200F.p.05.1	M00004285C:A08	3984
2704	2/24/98	434	RTA00000348R.b.16.1	M00001347B:H04	6510
2705	1/28/98	528	RTA00000200F.n.09.2	M00004249D:B08	12391
2706	2/24/98	575	RTA00000345F.a.18.1	M00001351C:B06	5517
2707	1/28/98	658	RTA00000193AF.a.1.1	M00004216D:C03	16501
2708	1/28/98	472	RTA00000192AF.p.17.1	M00004214C:H05	11451
2709	1/28/98	478	RTA00000192AR.o.24.2	M00004210B:B05	7191
2710	1/28/98	753	RTA00000192AF.o.17.1	M00004208D:B10	5275
2711	1/28/98	563	RTA00000192AR.o.16.2	M00004208B:F05	9061
2712	1/28/98	730	RTA00000192AF.o.11.1	M00004205D:F06	0
2713	1/28/98	624	RTA00000200F.o.15.1	M00004275A:B03	7866
2714	2/24/98	169	RTA00000347F.a.17.1	M00001366D:C06	16723
2715	1/28/98	656	RTA00000178AR.h.22.3	M00001376B:A08	19230
2715	1/28/98	657	RTA00000178AR.h.22.2	M00001376B:A08	19230
2715	2/24/98	1137	RTA00000345F.d.03.1	M00001376B:A08	19230
2716	1/28/98	657	RTA00000178AR.h.22.2	M00001376B:A08	19230
2716	1/28/98	656	RTA00000178AR.h.22.3	M00001376B:A08	19230
2716	2/24/98	1137	RTA00000345F.d.03.1	M00001376B:A08	19230
2717	1/28/98	522	RTA00000178AR.h.17.2	M00001376A:C05	23824
2717	2/24/98	1095	RTA00000345F.c.12.1	M00001376A:C05	23824
2718	1/28/98	522	RTA00000178AR.h.17.2	M00001376A:C05	23824
2718	2/24/98	1095	RTA00000345F.c.12.1	M00001376A:C05	23824
2719	2/24/98	1155	RTA00000353R.h.04.1	M00001375B:C06	17123
2720	1/28/98	614	RTA00000201F.f.03.1	M00004493B:D09	22633
2721	2/24/98	16	RTA00000399F.a.02.1	M00001366D:C12	0
2722	1/28/98	436	RTA00000200AF.k.11.1	M00004197C:F03	9796
2722	1/28/98	501	RTA00000200R.k.11.1	M00004197C:F03	9796
2723	2/24/98	1140	RTA00000339F.c.05.1	M00001365A:H10	3908
2724	2/24/98	322	RTA00000339F.c.24.1	M00001364B:B06	5516
2725	2/24/98	888	RTA00000339R.c.04.1	M00001362D:H01	1805
2726	1/28/98	33	RTA00000178AR.a.20.1	M00001362C:H11	945
2726	2/24/98	979	RTA00000345F.b.17.1	M00001362C:H11	945
2727	1/28/98	33	RTA00000178AR.a.20.1	M00001362C:H11	945
2727	2/24/98	979	RTA00000345F.b.17.1	M00001362C:H11	945
2728	2/24/98	1173	RTA00000339R.b.07.1	M00001360A:G10	6826
2729	2/24/98	973	RTA00000339F.b.22.1	M00001373D:B03	6867
2730	1/28/98	581	RTA00000191AF.p.3.2	M00004104B:F11	17
2731	1/28/98	637	RTA00000200AF.g.15.1	M00004135B:G01	22898
2731	1/28/98	476	RTA00000200R.g.15.1	M00004135B:G01	22898
2732	1/28/98	637	RTA00000200AF.g.15.1	M00004135B:G01	22898
2732	1/28/98	476	RTA00000200R.g.15.1	M00004135B:G01	22898
2733	1/28/98	474	RTA00000192AR.d.1.3	M00004130D:H01	14507
2734	1/28/98	735	RTA00000192AF.b.11.1	M00004117A:G01	40014
2735	1/28/98	726 753	RTA00000200R.f.10.1	M00004111D:B07	4
2736	1/28/98	752 516	RTA00000192AF.o.7.1	M00004204D:C03	5275
2737	1/28/98	516	RTA00000200AF.e.23.1	M00004107B:A06	14686
2738	1/28/98	685	RTA00000200F.i.9.1	M00004159C:F09	36756
2738	2/24/98	704	RTA00000355R.a.12.1	M00004159C:F09	36756
2739	1/28/98	417	RTA00000200R.d.16.1	M00004085A:B02	39875

SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
2740	1/28/98	454	RTA00000200R.d.04.1	M000040704.407	5506
2741	1/28/98	551	RTA00000200R.d.04.1	M00004078A:A06	5506
2742	1/28/98	524		M00004076D:D04	15972
2743	2/24/98	1166	RTA00000191AF.j.24.1	M00004076B:G03	0
2743	1/28/98	684	RTA00000347F.h.01.1	M00004040A:G12	12043
2744	2/24/98	1166	RTA00000200AR.b.11.1 RTA00000347F.h.01.1	M00004040A:G12	12043
2744	1/28/98	684		M00004040A:G12	12043
2745	1/28/98	415	RTA00000200AR.b.11.1 RTA00000200AF.f.09.1	M00004040A:G12	12043
2746	1/28/98	448	RTA00000200AF.1.09.1 RTA00000200AF.j.9.1	M00004111C:E11	12863
2747	2/24/98	446	RTA00000200AF.J.9.1 RTA00000133A.m.19.2	M00004177C:A01	8608
2748	1/28/98	436	RTA00000133A.m.19.2 RTA00000200AF.k.11.1	M00001512A:G05	80167
2748	1/28/98	501	RTA00000200AF.K.11.1	M00004197C:F03	9796
2749	1/28/98	436	RTA00000200R.k.11.1	M00004197C:F03	9796
2749	1/28/98	501	RTA00000200AF.K.11.1 RTA00000200R.k.11.1	M00004197C:F03 M00004197C:F03	9796
2750	1/28/98	436	RTA00000200R.R.11.1 RTA00000200AF.k.11.1		9796
2750	1/28/98	501	RTA00000200AF.R.11.1	M00004197C:F03	9796
2751	1/28/98	610	RTA00000200R.R.11.1 RTA00000200AF.k.2.1	M00004197C:F03	9796
2752	1/28/98	494	RTA00000200AF.k.2.1 RTA00000200AF.k.1.1	M00004188D:G08	35924
2752	1/28/98	194	RTA00000200AF.R.1.1 RTA00000200R.k.01.1	M00004188C:A09 M00004188C:A09	40049
2753	1/28/98	574	RTA00000200R.R.01.1 RTA00000192AF.f.3.1		40049
2754	1/28/98	604	RTA00000192AF.I.3.1 RTA00000200AF.j.15.1	M00004146C:C11 M00004185D:E04	5257
2755	1/28/98	579	RTA00000200A1.J.13.1	M00004183D:E04 M00004157D:B03	5849
2756	1/28/98	634	RTA000002001.1.7.1 RTA00000192AF.j.6.1	M00004137D:B03 M00004172C:D08	22322
2757	1/28/98	421	RTA00000192A1.j.d.1 RTA00000200AF.i.21.1	M00004172C.D08 M00004167D:A07	11494
2758	1/28/98	543	RTA00000200AF.i.19.1	M00004167D:A07	5316
2759	1/28/98	483	RTA00000192AF.h.19.1	M00004167A:R03	14722
2760	2/24/98	704	RTA00000152A1.11.15.11 RTA00000355R.a.12.1	M00004162C:A07	4642 36756
2760	1/28/98	685	RTA00000335R.a.12.1	M00004159C:F09	36756
2761	1/28/98	607	RTA00000200AF.k.12.1	M00004139C:109	7359
2762	1/28/98	494	RTA00000200AF.k.1.1	M00004178B:D02	40049
2762	1/28/98	194	RTA00000200R.k.01.1	M00004188C:A09	40049
2763	2/24/98	554	RTA00000409F.i.03.1	M00001100C:A09	75968
2764	2/24/98	1228	RTA00000404F.h.10.1	M00001618A:A03	37148
2765	2/24/98	332	RTA00000409F.i.24.1	M00001611B:A09	76967
2766	2/24/98	1023	RTA00000404F.f.12.1	M00001611B:A05	39209
2767	2/24/98	572	RTA00000422F.1.03.1	M00001610D:D05	39147
2768	2/24/98	497	RTA00000350R.f.21.1	M00001610C:E07	22110
2769	2/24/98	557	RTA00000409F.j.05.1	M00001611C:C12	74128
2770	2/24/98	223	RTA00000404F.e.22.1	M00001610A:H05	11344
2771	2/24/98	165	RTA00000409F.j.07.1	M00001611C:H11	75190
2772	2/24/98	959	RTA00000340F.g.20.1	M00001609D:G10	4089
2773	2/24/98	737	RTA00000404F.e.15.1	M00001609B:C09	39101
2774	2/24/98	974	RTA00000340F.h.07.1	M00001608D:D11	19254
2775	2/24/98	857	RTA00000404F.e.09.1	M00001608B:A09	39121
2776	1/28/98	340	RTA00000185AF.n.8.1	M00001608B:A03	0
2776	2/24/98	75	RTA00000350R.i.22.1	M00001608B:A03	0
2777	1/28/98	340	RTA00000185AF.n.8.1	M00001608B:A03	0
2777	2/24/98	75	RTA00000350R.i.22.1	M00001608B:A03	0
2778	2/24/98	546	RTA00000409F.i.09.1	M00001610B:C07	75279
2779	2/24/98	374	RTA00000422F.m.04.1	M00001615B:A09	38702
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SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
0700	Appln	Appln	DT 4 00000101 4 2 1	NA00001511A A00	01437
2780	2/24/98	505	RTA00000121A.o.3.1	M00001511A:A02	81437
2781	2/24/98	453	RTA00000130A.h.13.1	M00001617A:A01	80790
2782	2/24/98	163	RTA00000422F.1.23.1	M00001616D:C11	4240
2783	2/24/98	889	RTA00000346F.b.16.1	M00001615C:G05	16485
2784	2/24/98	203	RTA00000404F.g.21.1	M00001615C:A11	37947
2785	2/24/98	32	RTA00000409F.j.02.1	M00001611B:E06	76417
2786	2/24/98	872	RTA00000409F.I.20.1	M00001615B:G01	74394
2787	2/24/98	978	RTA00000130A.e.20.1	M00001606A:H09	79502
2788	2/24/98	45	RTA00000409F.l.12.1	M00001615A:D06	26755
2789	2/24/98	182	RTA00000404F.g.14.1	M00001614D:B08	8858
2790	2/24/98	912	RTA00000404F.g.13.1	M00001614C:E06	9436
2791	2/24/98	1191	RTA00000340F.i.05.1	M00001614B:E08	0
2792	2/24/98	192	RTA00000421F.k.15.1	M00001613D:B03	2222
2793	2/24/98	360	RTA00000409F.j.19.1	M00001613A:F03	73792
2794	2/24/98	57	RTA00000409F.I.21.1	M00001615B:G07	73143
2795	2/24/98	354	RTA00000404F.c.03.2	M00001592C:F11	39198
2796	2/24/98	791	RTA00000399F.n.15.1	M00001594D:C03	3213
2797	2/24/98	921	RTA00000422F.j.02.1	M00001594D:B08	10368
2798	2/24/98	1114	RTA00000340F.f.22.1	M00001594B:F12	1720
2799	2/24/98	966	RTA00000422F.k.15.1	M00001594A:G09	19253
2800	2/24/98	46	RTA00000404F.c.20.1	M00001594A:D08	39088
2801	2/24/98	955	RTA00000404F.e.06.1	M00001607D:F06	39315
2802	2/24/98	1103	RTA00000346F.a.16.1	M00001593A:B07	12082
2803	2/24/98	540	RTA00000418F.i.18.1	M00001595C:B05	78024
2804	2/24/98	1245	RTA00000422F.k.22.1	M00001592C:E05	4098
2805	2/24/98	693	RTA00000404F.b.19.1	M00001592B:A04	39281
2806	2/24/98	1013	RTA00000404F.b.18.1	M00001592A:H05	13669
2807	2/24/98	989	RTA00000418F.i.12.1	M00001592A:E02	78971
2808	2/24/98	404	RTA00000404F.b.11.1	M00001591D:F06	39079
2809	2/24/98	786	RTA00000404F.b.09.1	M00001591D:C07	39166
2810	2/24/98	1147	RTA00000404F.c.18.1	M00001594A:C01	38982
2811	2/24/98	686	RTA00000129A.k.21.1	M00001601A:E12	82067
2812	2/24/98	1011	RTA00000400F.c.04.1	M00001618A:F08	6445
2813	2/24/98	702	RTA00000130A.d.5.1	M00001605A:H03	82051
2814	2/24/98	425	RTA00000130A.b.5.1	M00001605A:E09	79579
2815	2/24/98	458	RTA00000130A.a.19.1	M00001605A:A06	0
2816	2/24/98	51	RTA00000129A.n.21.1	M00001604A:C11	79381
2817	2/24/98	804	RTA00000129A.n.24.1	M00001604A:C07	81409
2818	2/24/98	317	RTA00000195AF.b.21.1	M00001595B:A09	39055
2818	1/28/98	602	RTA00000195AF.b.21.1	M00001595B:A09	39055
2819	2/24/98	864	RTA00000129A.n.17.1	M00001604A:A09	79811
2820	2/24/98	317	RTA00000195AF.b.21.1	M00001595B:A09	39055
2820	1/28/98	602	RTA00000195AF.b.21.1	M00001595B:A09	39055
2821	2/24/98	875	RTA00000129A.k.22.1	M00001601A:E02	79639
2822	2/24/98	406	RTA00000129A.k.12.1	M00001601A:A06	79322
2823	2/24/98	179	RTA00000418F.i.19.1	M00001596D:E03	79180
2824	2/24/98	759	RTA00000399F.o.06.1	M00001595D:G03	13574
2825	2/24/98	306	RTA00000404F.d.13.1	M00001595D:A04	39036
2826	2/24/98	1055	RTA00000346F.a.04.1	M00001607B:C05	5382
2827	2/24/98	350	RTA00000129A.p.3.1	M00001604A:B08	32644

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appin			
2828	2/24/98	721	RTA00000422F.k.14.1	M00001649D:A08	0
2829	2/24/98	391	RTA00000130A.h.16.1	M00001049D,A08	80761
2830	2/24/98	962	RTA00000404F.p.05.2	M00001617A:A08	1896
2831	2/24/98	65	RTA00000404F.p.04.2	M00001652D:E05	39069
2832	2/24/98	1108	RTA00000346F.c.16.1	M00001652B:G10	9579
2833	2/24/98	1200	RTA00000422F.k.17.1	M00001652A:A01	38955
2834	2/24/98	1218	RTA00000418F.m.18.1	M00001653B:G10	76479
2835	2/24/98	171	RTA00000404F.n.20.1	M00001650A:C11	26865
2836	2/24/98	180	RTA00000400F.j.19.1	M00001653C:D10	4086
2837	2/24/98	556	RTA00000400F.i.11.1	M00001649C:H10	2587
2838	2/24/98	848	RTA00000404F.n.18.2	M00001649C:E11	37169
2839	2/24/98	29	RTA00000404F.n.16,2	M00001649C:D05	39095
2840	2/24/98	146	RTA00000404F.n.11.2	M00001649A:E11	38001
2841	2/24/98	700	RTA00000350R.m.14.1	M00001644C:B07	39171
2842	2/24/98	699	RTA00000340F.I.05.1	M00001644B:D06	38935
2843	2/24/98	479	RTA00000418F.m.10.1	M00001651A:H11	79110
2844	2/24/98	1169	RTA00000405F.b.08.1	M00001656B:E01	39182
2845	2/24/98	855	RTA00000423F.a.01.1	M00001659C:F10	39103
2846	2/24/98	363	RTA00000405F.c.11.1	M00001659A:D12	39068
2847	2/24/98	807	RTA00000418F.n.11.1	M00001658D:G12	78977
2848	2/24/98	795	RTA00000418F.n.07.1	M00001658B:A07	76316
2849	2/24/98	109	RTA00000422F.p.24.2	M00001658A:G09	5823
2850	2/24/98	696	RTA00000404F.p.12.2	M00001653B:C06	0
2851	2/24/98	369	RTA00000410F.m.05.1	M00001657B:B04	74964
2852	2/24/98	1229	RTA00000422F.n.14.1	M00001642C:G02	26787
2853	2/24/98	529	RTA00000422F.o.19.2	M00001655C:E01	13084
2854	2/24/98	327	RTA00000405F.a.11.1	M00001655A:B11	39124
2855	2/24/98	393	RTA00000418F.m.24.1	M00001654D:F12	77114
2856 - 2857	2/24/98	381	RTA00000418F.m.23.1	M00001654D:F11	77195
2858	2/24/98 2/24/98	877	RTA00000418F.m.22.1	M00001654D:E12	74567
2859	2/24/98 2/24/98	166	RTA00000418F.m.19.1	M00001654D:A03	8890
2860	2/24/98	291	RTA00000405F.c.01.1	M00001657D:A04	19236
2861	2/24/98	356 717	RTA00000409F.m.24.1	M00001620D:H02	3942
2862	2/24/98	648	RTA00000404F.i.22.1	M00001625C:G05	39082
2863	2/24/98	914	RTA00000340F.i.13.1 RTA00000138A.m.15.1	M00001624B:B10	79299
2864	2/24/98	587	RTA00000138A.m.15.1 RTA00000130A.o.21.1	M00001624A:A03	41603
2865	2/24/98	22	RTA00000130A.6.21.1 RTA00000130A.m.15.1	M00001623A:F04	80218
2866	2/24/98	7 <b>6</b> 7	RTA00000130A.m.13.1 RTA00000138A.p.10.1	M00001622A:H12	81630
2867	2/24/98	262	RTA00000138A.p.10.1 RTA00000409F.n.14.1	M00001644A:H01	81625
2868	2/24/98	960	RTA00000404F.I.14.1	M00001621B:G05	78190
2869	2/24/98	608	RTA00000404F.i.12.1	M00001639B:H01 M00001620D:G11	16196
2870	2/24/98	342	RTA00000404F.i.02.1	M00001620D:G11 M00001619D:D10	39001
2871	2/24/98	195	RTA00000404F.h.22.1	M00001619D:D10	39015
2872	2/24/98	214	RTA00000404F.h.19.1	M00001619C:C07 M00001619A:E05	18735
2873	2/24/98	52	RTA00000409F.m.12.1	M00001618B:D09	8096
2874	2/24/98	769	RTA00000340F.i.10.1	M00001618A:F10	73490 38561
2875	2/24/98	383	RTA00000404F.i.18.1	M00001616A.F10	21912
2876	2/24/98	256	RTA00000404F.m.03.2	M00001621C:H12	11799
2877	2/24/98	519	RTA00000404F.I.10.1	M00001638B:F10	23136
			100		49190

SEQ ID NO:	Filing Date of	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Priority Appln	Appln			
2878	2/24/98	646	RTA00000421F.m.14.1	M00001642A:F03	3524
2879	2/24/98	659	RTA00000422F.m.24.1	M00001641D:C04	39159
2880	2/24/98	701	RTA00000418F.I.11.1	M00001641C:H07	77158
2881	2/24/98	873	RTA00000418F.I.06.1	M00001641C:F01	73317
2882	2/24/98	422	RTA00000418F.I.04.1	M00001641C:D02	74140
2883	2/24/98	766	RTA00000404F.j.01.1	M00001625D:G10	26859
2884	2/24/98	20	RTA00000404F.m.04.2	M00001641A:A11	22720
2885	2/24/98	346	RTA00000418F.j.08.1	M00001626C:C11	73382
2886	2/24/98	141	RTA00000418F.k.19.1	M00001639C:C02	74932
2887	2/24/98	373	RTA00000418F.k.18.1	M00001639C:A10	75385
2888	2/24/98	405	RTA00000418F.k.17.1	M00001639C:A09	75390
2889	2/24/98	63	RTA00000404F.1.20.2	M00001639B:H05	38638
2889	2/24/98	133	RTA00000404F.1.20.1	M00001639B:H05	38638
2890	2/24/98	133	RTA00000404F.I.20.1	M00001639B:H05	38638
2890	2/24/98	63	RTA00000404F.1.20.2	M00001639B:H05	38638
2891	2/24/98	1261	RTA00000404F.m.17.2	M00001643B:E05	0
2892	2/24/98	626	RTA00000410F.j.01.1	M00001641B:F12	73399
2893	2/24/98	982	RTA00000126A.p.23.2	M00001552A:F06	80915
2894	2/24/98	196	RTA00000418F.k.10.1	M00001639A:G07	74454
2895	2/24/98	765	RTA00000137A.j.15.4	M00001559A:C08	4213
2896	2/24/98	895	RTA00000137A.j.11.4	M00001559A:A11	79752
2897	2/24/98	232	RTA00000128A.b.20.1	M00001558A:G09	79761
2898	2/24/98	152	RTA00000127A.i.20.1	M00001555A:B12	81418
2899	2/24/98	78	RTA00000195AF.b.13.1	M00001560D:A03	12605
2899	1/28/98	59	RTA00000195AF.b.13.1	M00001560D:A03	12605
2900	2/24/98	448	RTA00000127A.a.3.1	M00001552A:H10	13232
2901	2/24/98	801	RTA00000128A.m.23.1	M00001561A:D01	81441
2902	2/24/98	499	RTA00000126A.p.18.2	M00001552A:E10	80881
2903	2/24/98	1212	RTA00000349R.o.03.1	M00001551D:H07	23006
2904	2/24/98	484	RTA00000126A.n.13.2	M00001551A:H06	79735
2905	2/24/98	240	RTA00000126A.n.7.2	M00001551A:D06	79557
2906	2/24/98	451	RTA00000126A.o.22.1	M00001551A:A11	81752
2907	2/24/98	513	RTA00000126A.k.7.2	M00001550A:E07	79866
2908	2/24/98	578	RTA00000127A.f.11.1	M00001554A:A08 M00001579A:E03	81463 74286
2909	2/24/98	372	RTA00000408F.p.24.1	M00001579A.E03	74280 74978
2910	2/24/98	985	RTA00000409F.a.08.1	M00001582D:B01	79780
2911	2/24/98	685	RTA00000129A.a.13.2 RTA00000403F.o.14.1	M00001582A:A03	38971
2912	2/24/98	574 601	RTA00000403F.o.14.1 RTA00000403F.o.13.1	M00001579D:F04	39049
2913 2914	2/24/98 2/24/98	432	RTA00000403F.G.13.1 RTA00000418F.g.05.1	M00001579D:104	73075
2914	1/28/98	432 59	RTA00000195AF.b.13.1	M00001579C:1100	12605
2915	2/24/98	78	RTA00000195AF.b.13.1	M00001560D:A03	12605
2916	2/24/98	491	RTA00000133A1.0.13.1	M00001579B:F04	75157
2917	2/24/98	612	RTA000004181.1.2111 RTA00000125A.k.14.1	M00001545A:G05	79457
2918	1/28/98	248	RTA00000123A.k.14.1 RTA00000198R.c.14.1	M00001578D:C04	39814
2918	2/24/98	778	RTA00000175R.e.14.1 RTA00000347F.e.05.1	M00001578D:C04	39814
2919	1/28/98	248	RTA000003477.c.03.1 RTA00000198R.c.14.1	M00001578D:C04	39814
2919	2/24/98	778	RTA00000178R:e:14.1 RTA00000347F.e.05.1	M00001578D:C04	39814
2920	2/24/98	361	RTA000003471.c.03.1	M00001570C:G03	39133
2921	2/24/98	173	RTA00000422F.d.10.1	M00001570A:H01	74309
	- 1770	.,5	11.7.00000		

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SEQ ID	Filing	SEQ ID	Sequence Name	Clone Name	Cluster
NO:	Date of	NO: in			ID
	Priority	Priority			
2022	Appin	Appln			
2922 2923	2/24/98	1195	RTA00000422F.e.23.1	M00001567D:B03	19246
2923 2924	2/24/98	1168	RTA00000421F.b.06.1	M00001567A:B09	2113
2924 2925	2/24/98	580	RTA00000403F.o.07.1	M00001579C:A01	39037
2925 2926	2/24/98	531	RTA00000345F.n.12.1	M00001528A:C04	7337
2926	2/24/98	154	RTA00000340F.b.21.1	M00001533D:A08	8001
2927	2/24/98	19	RTA00000123A.k.23.1	M00001533A:G05	80313
2928 2929	2/24/98	1265	RTA00000340F.d.07.1	M00001532D:A06	0
2929	2/24/98	1124	RTA00000123A.h.22.1	M00001532A:C01	17124
2930	2/24/98	1241	RTA00000408F.J.14.1	M00001530A:E10	12001
2931	2/24/98	534	RTA00000126A.g.7.1	M00001548A:H04	1902
2932	2/24/98	694	RTA00000418F.c.07.1	M00001529D:C05	73245
2933	2/24/98	1034	RTA00000124A.f.16.3	M00001536A:F11	47430
2934	2/24/98	790	RTA00000345F.n.08.1	M00001517A:B11	0
2936	2/24/98	613	RTA00000122A.j.22.1	M00001516A:F06	81151
2937	2/24/98	885	RTA00000122A.j.17.1	M00001516A:D02	62736
2938	2/24/98	1262	RTA00000122A.h.4.1	M00001514A:G03	33576
2939	2/24/98	135	RTA00000122A.d.5.1	M00001513A:F05	81155
2939	1/28/98	391 527	RTA00000179AF.c.20.3	M00001396A:C03	4009
2940	2/24/98	537	RTA00000408F.1.09.1	M00001530A:A09	75487
2942	2/24/98	683	RTA00000403F.j.21.1	M00001540D:E02	24723
2942	2/24/98	343	RTA00000422F.g.21.1	M00001583A:F07	17232
2944	2/24/98 2/24/98	226	RTA00000125A.k.10.1	M00001545A:F02	81644
2945	2/24/98	763	RTA00000135A.m.18.1	M00001545A:C03	19255
2946	2/24/98	156	RTA00000125A.k.1.1	M00001545A:B12	0
2947	2/24/98	597	RTA00000135A.I.1.2	M00001545A:B10	39426
2948	2/24/98	586	RTA00000125A.g.24.1	M00001544A:F05	80397
2949	2/24/98	467 830	RTA00000123A.n.13.2	M00001534A:D03	39167
2950	2/24/98	997	RTA00000347F.b.08.1	M00001541B:E05	17591
2951	2/24/98	371	RTA00000134A.I.9.1	M00001535A:D10	81814
2952	2/24/98	371	RTA00000403F.j.17.1	M00001539D:B10	38563
2953	2/24/98		RTA00000403F.j.15.1	M00001539B:G07	23840
2954	2/24/98	1209 530	RTA00000408F.n.05.2	M00001539A:H02	77883
2955	2/24/98	1213	RTA00000408F.n.02.2	M00001539A:E01	76993
2956	2/24/98	347	RTA00000135A.a.23.1 RTA00000125A.n.4.1	M00001537A:H05	27054
2957	2/24/98	472	RTA00000125A.n.4.1 RTA00000135A.f.14.2	M00001546A:D08	81984
2958	2/24/98	243	RTA00000133A.1.14.2 RTA00000410F.c.14.1	M00001542A:G12	79969
2959	2/24/98	919	RTA00000410F.d.14.1 RTA00000410F.d.18.1	M00001634A:H05	77809
2960	2/24/98	825	RTA00000410F.d.18.1 RTA00000404F.k.22.2	M00001635D:D05	75458
2960	2/24/98	364	RTA00000404F.k.22.2 RTA00000404F.k.22.1	M00001635D:C12	39084
2961	2/24/98	825	RTA00000404F.k.22.1 RTA00000404F.k.22.2	M00001635D:C12	39084
2961	2/24/98	364	RTA00000404F.k.22.2 RTA00000404F.k.22.1	M00001635D:C12	39084
2962	2/24/98	595	RTA00000404F.R.22.1 RTA00000410F.d.10.1	M00001635D:C12	39084
2963	2/24/98	175	RTA00000410F.d.10.1	M00001635B:H02	77561
2964	2/24/98	206	RTA00000410F.b.15.1	M00001635B:H01	76964
2965	2/24/98	1083	RTA00000410F.5.15.1 RTA00000418F.j.20.1	M00001633C:F09	77100
2966	2/24/98	922	RTA00000418F.J.20.1 RTA00000410F.e.09.1	M00001634D:D04	77101
2967	2/24/98	1035	RTA00000410F.e.09.1 RTA00000404F.k.15.1	M00001636A:F08	76093
2968	2/24/98	1167	RTA00000404F.K.15.1 RTA00000410F.c.06.1	M00001634A:B04	18225
2969	2/24/98	53	RTA00000410F.c.06.1	M00001633D:H06	77784
			K1700000410F.C.04.1	M00001633D:G09	74099
			104		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln		> 4000001 (BOD D 40	
2970	2/24/98	567	RTA00000410F.c.02.1	M00001633D:D12	75055
2971	2/24/98	819	RTA00000410F.b.24.1	M00001633D:D09	75104
2972	2/24/98	666	RTA00000403F.o.19.1	M00001582D:F02	78615
2973	2/24/98	559	RTA00000418F.k.03.1	M00001634D:G11	78901
2974	2/24/98	999	RTA00000418F.k.04.1	M00001637A:A03	75864
2975	2/24/98	936	RTA00000121A.n.23.1	M00001511A:G01	26981
2976	2/24/98	201	RTA00000404F.I.09.1	M00001638B:E12	39176
2977	2/24/98	1160	RTA00000400F.g.02.1	M00001638B:E03	1508
2978	2/24/98	827	RTA00000410F.f.12.1	M00001637C:E03	73883
2979	2/24/98	622	RTA00000404F.I.07.1	M00001637C:C06	10798
2980	2/24/98	365	RT'A00000418F.k.07.1	M00001637A:F10	75067
2981	2/24/98	248	RTA00000404F.k.24.1	M00001636A:C03	15256
2982	2/24/98	25	RTA00000418F.k.05.1	M00001637A:A06	73021
2983	2/24/98	1178	RTA00000400F.f.11.1	M00001636A:E07	4088
2984	2/24/98	1180	RTA00000404F.1.05.1	M00001636D:F09	38671
2985	2/24/98	711	RTA00000404F.I.03.2	M00001636B:G11	40272
2985	2/24/98	785	RTA00000404F.I.03.1	M00001636B:G11	40272
2986	2/24/98	785	RTA00000404F.I.03.1	M00001636B:G11	40272
2986	2/24/98	711	RTA00000404F.I.03.2	M00001636B:G11	40272
2987	2/24/98	711	RTA00000404F.l.03.2	M00001636B:G11	40272
2987	2/24/98	785	RTA00000404F.I.03.1	M00001636B:G11	40272
2988	2/24/98	711	RTA00000404F.I.03.2	M00001636B:G11	40272
2988	2/24/98	785	RTA00000404F.l.03.1	M00001636B:G11	40272
2989	2/24/98	1106	RTA00000410F.b.17.1	M00001633C:H05	77458
2990	2/24/98	253	RTA00000400F.f.18.1	M00001637A:E10	3764
2991	2/24/98	562	RTA00000401F.j.17.1	M00003901B:C05	5483
2992	2/24/98	1082	RTA00000137A.o.22.1	M00001587A:D01	0
2993	2/24/98	594	RTA00000129A.c.18.2	M00001587A:B10	37216
2994 2995	2/24/98 2/24/98	891	RTA00000137A.p.12.1	M00001587A:B01	80614
2995 2996	2/24/98	131	RTA00000418F.g.22.1	M00001585B:F01	74837
		880	RTA00000418F.g.20.1	M00001585B:C03 M00001633C:H11	74626
2997 2998	2/24/98	742	RTA00000410F.b.18.1	M00001633C:H11	76701
2999	2/24/98 2/24/98	879 167	RTA00000409F.b.19.1 RTA00000399F.l.14.1	M00001584D.H02 M00001590B:G08	14479 3354
3000	2/24/98	1260	RTA00000399F.1.14.1 RTA00000422F.f.18.1	M00001583D:B08	24528
3000	2/24/98	1258	RTA00000422F.1.18.1 RTA00000403F.p.05.2	M00001583D:B08	24528
3001	2/24/98	1250	RTA000004031.p.03.2 RTA00000422F.f.18.1	M00001583D:B08	24528
3001	2/24/98	1258	RTA00000422F3.18.1 RTA00000403F.p.05.2	M00001583D:B08	24528
3002	2/24/98	1256	RTA000004031.p.03.2 RTA00000422F.f.18.1	M00001583D:B08	24528
3002	2/24/98	1258	RTA000004221.1.18.1 RTA00000403F.p.05.2	M00001583D:B08	24528
3002	2/24/98	1250	RTA000004031.p.03.2 RTA00000422F.f.18.1	M00001583D:B08	24528
3003	2/24/98	1258	RTA00000422716.17 RTA00000403F.p.05.2	M00001583D:B08	24528
3003	2/24/98	67	RTA00000409F.a.22.1	M00001583B:F02	75200
3005	2/24/98	564	RTA000004091.a.22.1 RTA00000418F.k.08.1	M00001383B:102	18259
3006	1/28/98	282	RTA000004761.k.08.1 RTA00000193AF.c.15.1	M00004248B:E08	3726
3007	2/24/98	242	RTA00000193AF.C.13.1 RTA00000404F.j.08.1	M00004248B:E08	39066
3007	2/24/98	669	RTA00000410F.b.10.1	M00001029B:B08 M00001633C:B09	74504
3008	2/24/98	725	RTA00000410F.b.07.1	M00001633C:A05	7 <del>4</del> 304 78916
3010	2/24/98	423	RTA00000410F.a.16.1	M00001633C:A03	73548
3011	2/24/98	695	RTA00000418F.j.15.1	M00001633A:E00 M00001632C:H07	74855
2011	2144170	075	KIAOOOOATOL J. 13.1	14100001034C.110/	77055

SEQ ID NO:	Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
2010	Appln	Appln			
3012	2/24/98	901	RTA00000418F.j.14.1	M00001632C:B10	32623
3013	2/24/98	752	RTA00000410F.a.08.1	M00001632A:B10	73324
3014	2/24/98	1007	RTA00000404F.a.01.1	M00001589B:B08	19251
3015	2/24/98	1093	RTA00000340F.i.15.1	M00001629C:E07	26815
3016	2/24/98	664	RTA00000404F.a.09.1	M00001589C:E06	38985
3017	2/24/98	1246	RTA00000418F.j.11.1	M00001626C:E04	73853
3018	2/24/98	174	RTA00000404F.b.02.1	M00001591B:B12	38984
3019	2/24/98	1142	RTA00000418F.i.06.1	M00001591B:B06	75151
3020	2/24/98	740	RTA00000399F.I.19.1	M00001590D:G07	40145
3021	2/24/98	1098	RTA00000409F.d.16.1	M00001590C:F10	76090
3022	2/24/98	591	RTA00000409F.a.16.1	M00001583A:A05	73990
3023	2/24/98	1110	RTA00000404F.j.24.1	M00001631D:G05	39067
3024	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3024	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3024	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957
3025	1/28/98	68	RTA00000184F.k.19.1	M00001558B:D08	8022
3025	1/28/98	63	RTA00000184AF.k.19.1	M00001558B:D08	8022
3026	1/28/98	269	RTA00000183AF.k.13.1	M00001534B:C12	0
3027	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957
3027	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3027	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3028	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957
3028	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3028	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3029	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3029	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3029	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957
3030	1/28/98	34	RTA00000197AF.n.8.1	M00001536D:A12	4101
3031	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3031	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957
3031	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3032	1/28/98	106	RTA00000197AF.n.21.1	M00001540B:C09	0
3033	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3033	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957
3033	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3034	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3034	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3034	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957
3035	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957
3035	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3035	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3036	1/28/98	233	RTA00000197AF.I.8.1	M00001511B:C06	39954
3037	1/28/98	323	RTA00000182AF.m.21.1	M00001490C:C12	18699
3038	1/28/98	223	RTA00000197F.i.9.1	M00001488D:C10	0
3039	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3039	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3039	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957
3040	1/28/98	352	RTA00000197AF.p.3.1	M00001550A:A03	7239
3041	1/28/98	301	RTA00000181AR.i.19.3	M00001452C:B06	16970
3041	1/28/98	295	RTA00000181AR.i.19.2	M00001452C:B06	16970
			10.6		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appin	Appln			
3042	1/28/98	68	RTA00000184F.k.19.1	M00001558B:D08	8022
3042	1/28/98	63	RTA0000184AF.k.19.1	M00001558B:D08	8022
3043	1/28/98	63	RTA00000184AF.k.19.1	M00001558B:D08	8022
3043	1/28/98	68	RTA0000184F.k.19.1	M00001558B:D08	8022
3044	1/28/98	41	RTA00000184F.k.12.1	M00001557D:D09	8761
3045	1/28/98	150	RTA00000184F.k.09.1	M00001557C:H07	7065
3046	1/28/98	82	RTA00000183AF.I.18.1	M00001535D:C01	3484
3047	1/28/98	338	RTA0000184AF.i.1.1	M00001554B:C07	0
3048	1/28/98	327	RTA00000182AF.i.1.3	M00001479B:A01	7033
3049	1/28/98	256	RTA0000184AR.e.15.1	M00001549C:E06	16347
3050	1/28/98	99	RTA00000184AF.d.8.1	M00001548A:A08	4393
3051	1/28/98	355	RTA00000184AR.b.24.1	M00001546B:C05	5777
3052	1/28/98	322	RTA00000184AR.b.21.1	M00001546B:B02	39788
3053	1/28/98	97	RTA00000197AF.o.2.1	M00001541C:B07	5739
3054	1/28/98	313	RTA00000183AF.o.11.1	M00001540D:D02	0
3055	1/28/98	42	RTA00000184F.j.21.1	M00001557A:D02	7065
3056	1/28/98	378	RTA00000181AF.k.24.3	M00001454B:C12	7005
3056	1/28/98	119	RTA00000181AR.k.24.2	M00001454B:C12	7005
3056	1/28/98	116	RTA00000181AR.k.24.3	M00001454B:C12	7005
3057	1/28/98	134	RTA00000197F.e.11.1	M00001454B:G03	2306
3057	1/28/98	298	RTA00000197AR.e.11.1	M00001454B:G03	2306
3058	1/28/98	134	RTA00000197F.e.11.1	M00001454B:G03	2306
3058	1/28/98	298	RTA00000197AR.e.11.1	M00001454B:G03	2306
3059	1/28/98	134	RTA00000197F.e.11.1	M00001454B:G03	2306
3059	1/28/98	298	RTA00000197AR.e.11.1	M00001454B:G03	2306
3060	1/28/98	116	RTA00000181AR.k.24.3	M00001454B:C12	7005
3060	1/28/98	378	RTA00000181AF.k.24.3	M00001454B:C12	7005
3060	1/28/98	119	RTA00000181AR.k.24.2	M00001454B:C12	7005
3061	1/28/98	116	RTA00000181AR.k.24.3	M00001454B:C12	7005
3061	1/28/98	378	RTA00000181AF.k.24.3	M00001454B:C12	7005
3061	1/28/98	119	RTA00000181AR.k.24.2	M00001454B:C12	7005
3062	1/28/98	159	RTA00000182AF.l.12.1	M00001487A:A05	1027
3063	1/28/98	119	RTA00000181AR.k.24.2	M00001454B:C12	7005
3063	1/28/98	116	RTA00000181AR.k.24.3	M00001454B:C12	7005
3063	1/28/98	378	RTA00000181AF.k.24.3	M00001454B:C12	7005
3064	1/28/98	341	RTA00000181AF.1.06.2	M00001454C:C08	0
3065	1/28/98	116	RTA00000181AR.k.24.3	M00001454B:C12	7005
3065	1/28/98	119	RTA00000181AR.k.24.2	M00001454B:C12	7005
3065	1/28/98	378	RTA00000181AF.k.24.3	M00001454B:C12	7005
3066	1/28/98	378	RTA00000181AF.k.24.3	M00001454B:C12	7005
3066	1/28/98	116	RTA00000181AR.k.24.3	M00001454B:C12	7005
3066	1/28/98	119	RTA00000181AR.k.24.2	M00001454B:C12	7005
3067	1/28/98	378	RTA00000181AF.k.24.3	M00001454B:C12	7005 7005
3067	1/28/98	116	RTA00000181AR.k.24.3	M00001454B:C12	
3067	1/28/98	119	RTA00000181AR.k.24.2	M00001454B:C12 M00001454B:C12	7005 7005
3068	1/28/98	378	RTA00000181AF.k.24.3 RTA00000181AR.k.24.3	M00001454B:C12	7005 7005
3068 3068	1/28/98	116	RTA00000181AR.k.24.3 RTA00000181AR.k.24.2	M00001454B:C12	7003 7005
3069	1/28/98	119	RTA00000181AR.k.24.2 RTA00000197AF.d.23.1	M00001454B:C12 M00001453A:E11	16130
3069	1/28/98 1/28/98	170 491	RTA00000197AF.d.23.1 RTA00000196F.k.11.1	M00001433A:E11 M00001399C:H12	3
JU / U	1/20/98	471	KIMOOOOITOEKIII	14100001377C.F12	ر

SEQ ID NO:	Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
3071	Appln 1/28/98	Appln	DT 4 400000101 4 D 4 6 4 6		
3071	1/28/98	119	RTA00000181AR.k.24.2	M00001454B:C12	7005
3071	1/28/98	378	RTA00000181AF.k.24.3	M00001454B:C12	7005
3071	1/28/98	116	RTA00000181AR.k.24.3	M00001454B:C12	7005
3072	1/28/98	674	RTA00000197AR.e.24.1	M00001456B:F10	39250
3072	2/24/98	3	RTA00000197AF.e.24.1	M00001456B:F10	39250
3073	1/28/98	78 50	RTA00000195AF.b.13.1	M00001560D:A03	12605
3073		59	RTA00000195AF.b.13.1	M00001560D:A03	12605
3074	1/28/98	189	RTA00000197AF.h.10.1	M00001476B:F10	15554
	1/28/98	46	RTA00000182AF.f.13.1	M00001470C:B10	8010
3076	1/28/98	200	RTA00000182AF.f.2.1	M00001469D:D02	4794
3077	1/28/98	325	RTA00000182AF.d.18.4	M00001467D:H05	37435
3078	1/28/98	45	RTA00000197AR.f.12.1	M00001458C:E01	3513
3079	1/28/98	298	RTA00000197AR.e.11.1	M00001454B:G03	2306
3079	1/28/98	134	RTA00000197F.c.11.1	M00001454B:G03	2306
3080	1/28/98	37	RTA00000181AF.n.15.2	M00001457A:B07	86128
3081	1/28/98	7	RTA00000197AR.e.12.1	M00001454B:G07	22095
3082	1/28/98	674	RTA00000197AR.e.24.1	M00001456B:F10	39250
3082	1/28/98	3	RTA00000197AF.e.24.1	M00001456B:F10	39250
3083	1/28/98	88	RTA00000197AF.e.23.1	M00001456B:C09	37157
3084	1/28/98	243	RTA00000181AF.m.15.3	M00001455D:A11	12081
3085	1/28/98	326	RTA00000197AR.e.19.1	M00001455D:A09	8047
3086	1/28/98	293	RTA00000197AF.e.13.1	M00001454C:F02	662
3087	1/28/98	380	RTA00000182AF.k.24.1	M00001485D:B10	5625
3088	1/28/98	206	RTA00000181AF.o.04.2	M00001457C:C12	22205
3089	1/28/98	228	RTA00000187AR.h.15.2	M00001679A:A06	6660
3090	1/28/98	68	RTA00000184F.k.19.1	M00001558B:D08	8022
3090	1/28/98	63	RTA00000184AF.k.19.1	M00001558B:D08	8022
3091	1/28/98	191	RTA00000187AF.p.23.1	M00003748B:F02	39804
3092	1/28/98	10	RTA00000198AF.n.16.1	M00001694C:H10	3721
3093	1/28/98	219	RTA00000198AF.m.19.1	M00001680D:D02	40041
3093	1/28/98	32	RTA00000198R.m.19.1	M00001680D:D02	40041
3094	1/28/98	32	RTA00000198R.m.19.1	M00001680D:D02	40041
3094	1/28/98	219	RTA00000198AF.m.19.1	M00001680D:D02	40041
3095	1/28/98	317	RTA00000198AF.p.09.1	M00003761D:E02	10473
3095 3096	1/28/98	186	RTA00000198R.p.09.1	M00003761D:E02	10473
	1/28/98	219	RTA00000198AF.m.19.1	M00001680D:D02	40041
3096	1/28/98	32	RTA00000198R.m.19.1	M00001680D:D02	40041
3097 3097	1/28/98	64	RTA00000198AF.p.12.1	M00003763D:E10	8878
	1/28/98	542	RTA00000198R.p.12.1	M00003763D:E10	8878
3098	1/28/98	364	RTA00000187AF.g.13.1	M00001676C:C11	2991
3099	1/28/98	430	RTA00000198R.k.23.1	M00001661B:C08	8995
3099	1/28/98	294	RTA00000198AF.k.23.1	M00001661B:C08	8995
3100	1/28/98	430	RTA00000198R.k.23.1	M00001661B:C08	8995
3100	1/28/98	294	RTA00000198AF.k.23.1	M00001661B:C08	8995
3101	1/28/98	57	RTA00000198AF.k.20.1	M00001660C:B12	22553
3102	1/28/98	368	RTA00000198AF.k.18.1	M00001660A:C12	17432
3103	1/28/98	247	RTA00000198AF.k.08.1	M00001656C:G08	17436
3104	1/28/98	219	RTA00000198AF.m.19.1	M00001680D:D02	40041
3104 3105	1/28/98	32	RTA00000198R.m.19.1	M00001680D:D02	40041
2102	1/28/98	199	RTA00000199R.c.09.1	M00003800A:C09	16824

PCT/US99/01619 WO 99/38972

Applin   A	SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
105   1/28/98   225   RTA00000199F.c.09.2   M00003800A:CO9   16824		•	•			
3106   1/28/98   225   RTA00000189AF.b.5.1   M00003828A:E04   3784   3107   1/28/98   5   RTA00000199R.c.11.1   M0000388C:B05   22049   3108   1/28/98   284   RTA00000199F.d.10.2   M00003808C:B05   22049   3109   1/28/98   284   RTA00000199F.d.10.2   M00003808C:B05   22049   3109   1/28/98   284   RTA00000199F.d.10.2   M00003808C:B05   22049   3109   1/28/98   22   RTA00000188AF.n.04.1   M00003808C:B05   22049   3110   1/28/98   22   RTA00000188AF.n.15.1   M00003804A:H04   0   0   0   0   0   0   0   0   0	3105		• •	RTA00000199F.c.09.2	M00003800A:C09	16824
3107   1/28/98   284   RTA00000199F.d.10.2   M00003808C:B05   22049						3784
3108   1/28/98   284   RTA00000199F.d.10.2   M00003808C:B05   22049					M00003811A:E03	66087
3108   2/24/98   316   RTA00000154R.n.04.1   M00003808C:B05   22049   3109   1/28/98   284   RTA00000159F.d.10.2   M00003808C:B05   22049   3100   1/28/98   21   RTA00000158R.n.04.1   M00003808C:B05   22049   3110   1/28/98   31   RTA00000158AF.n.04.1   M00003808A:B05   22049   3111   1/28/98   316   RTA00000198AF.p.09.1   M00003761D:E02   10473   3111   1/28/98   186   RTA00000198R.p.09.1   M00003761D:E02   10473   3112   1/28/98   199   RTA00000199R.c.09.1   M00003800A:C09   16824   3112   1/28/98   66   RTA00000199F.c.09.2   M00003800A:C09   16824   3113   1/28/98   487   RTA00000199F.c.09.2   M00003800A:C09   16824   3113   1/28/98   277   RTA00000199F.c.09.2   M00003800A:C09   16824   3113   1/28/98   277   RTA00000199F.c.09.2   M00003800A:C09   16824   3114   1/28/98   199   RTA00000199F.c.09.2   M00003800A:C09   16824   3114   1/28/98   294   RTA00000199F.c.09.2   M00003800A:C09   16824   3114   1/28/98   244   RTA00000199F.c.09.2   M00003800A:C09   16824   3115   1/28/98   216   RTA00000199F.c.09.1   M00003799A:D09   0   3116   1/28/98   216   RTA00000199F.c.09.1   M00003794B:D09   0   1918   3119   1/28/98   216   RTA00000198AF.p.18.1   M00003774B:B08   4959   3118   1/28/98   421   RTA00000198AF.p.12.1   M00003763D:E10   8878   3119   1/28/98   446   RTA00000198AF.p.12.1   M00003763D:E10   8878   3119   1/28/98   464   RTA00000198AF.p.12.1   M00003763D:E10   8878   3120   1/28/98   466   RTA00000198AF.p.12.1   M00003763D:E10   8878   3122   1/28/98   248   RTA00000198AF.p.12.1   M00003763D:E10   8878   3122   1/28/98   248   RTA00000198AF.p.12.1   M00003763D:E10   3874   3122   1/28/98   248   RTA00000198AF.p.12.1   M00003763D:E04   39814   3122   1/28/98   248   RTA00000198AF.c.05.1   M0000157BD:C04   39814   3123   1/28/98   248   RTA00000198AF.c.14.1   M0000157BD:C04   39814   3123   1/28/98   328   RTA00000198AF.c.05.1   M0000157BD:C04   39814   3123   1/28/98   328   RTA00000198AF.c.05.1   M0000157BD:C04   39814   3126   1/28/98   328   RTA00000198AF.c.07.1   M0000157BD:C04   39814   3126   1/2			_			22049
3109   1/28/98   284   RTA00000199F.d.I0.2   M00003808C:B05   22049   3109   2/24/98   816   RTA00000354R.n.04.1   M00003808C:B05   22049   3110   1/28/98   2   RTA00000188AF.n.05.1   M00003761D:E02   10473   3111   1/28/98   186   RTA00000198AF.p.09.1   M00003761D:E02   10473   3112   1/28/98   199   RTA00000199R.c.09.1   M00003761D:E02   10473   3112   1/28/98   66   RTA00000199F.c.09.2   M00003800A:C09   16824   3113   1/28/98   487   RTA00000199F.c.09.2   M00003800A:C09   16824   3113   1/28/98   277   RTA00000199F.c.09.2   M00003800A:C09   16824   3114   1/28/98   66   RTA00000199F.c.09.2   M00003800A:C09   16824   3114   1/28/98   199   RTA00000199F.c.09.2   M00003800A:C09   16824   3114   1/28/98   224   RTA00000199F.c.09.1   M00003800A:C09   16824   3114   1/28/98   58   RTA00000199F.c.09.1   M000037799A:D09   0					M00003808C:B05	22049
3109   2/24/98   816					M00003808C:B05	22049
3110					M00003808C:B05	22049
3111   1/28/98   317					M00003804A:H04	0
3111         1/28/98         186         RTA00000198R.p.09.1         M00003761D:E02         10473           3112         1/28/98         199         RTA00000199R.c.09.1         M00003800A:C09         16824           3113         1/28/98         487         RTA00000199F.c.09.2         M00001639A:F10         9807           3113         1/28/98         277         RTA00000199F.c.09.1         M00001639A:F10         9807           3114         1/28/98         277         RTA00000199F.c.09.1         M00003800A:C09         16824           3114         1/28/98         199         RTA00000199F.c.09.1         M00003800A:C09         16824           3115         1/28/98         224         RTA00000188AF.m.11.1         M00003778A:D08         19118           3116         1/28/98         28         RTA00000188AF.p.18.1         M00003774B:B08         4959           3118         1/28/98         216         RTA00000198F.p.12.1         M00003769B:D03         23081           3119         1/28/98         52         RTA00000198R.p.12.1         M00003769B:D03         23081           3120         1/28/98         54         RTA00000198AF.p.12.1         M00003769B:D03         23081           3120         1/28/98         19			317	RTA00000198AF.p.09.1	M00003761D:E02	10473
3112         1/28/98         199         RTA00000199R.c.09.1         M00003800A:C09         16824           3112         1/28/98         66         RTA00000199F.c.09.2         M00003800A:C09         16824           3113         1/28/98         277         RTA00000199R.c.09.2         M00003800A:C09         16824           3114         1/28/98         66         RTA00000199R.c.09.2         M00003800A:C09         16824           3114         1/28/98         199         RTA00000199R.c.09.1         M00003800A:C09         16824           3115         1/28/98         224         RTA00000198R.c.09.1         M00003799A:D09         0           3116         1/28/98         58         RTA00000188AF.m.11.1         M00003778A:D08         19118           3117         1/28/98         216         RTA00000188AF.m.18.1         M00003769B:D03         23081           3119         1/28/98         542         RTA00000198AF.p.12.1         M00003769B:D03         23081           3119         1/28/98         64         RTA00000198AF.p.12.1         M00003763D:E10         8878           3120         1/28/98         146         RTA00000199R.c.09.1         M00003800A:C09         16824           3121         1/28/98         146				· •	M00003761D:E02	10473
3112         1/28/98         66         RTA00000199F.c.09.2         M00003800A:C09         16824           3113         1/28/98         487         RTA00000198F.i.8.1         M00001639A:F10         9807           3114         1/28/98         66         RTA00000199R.c.09.2         M00003800A:C09         16824           3114         1/28/98         199         RTA00000199R.c.09.1         M00003800A:C09         16824           3115         1/28/98         224         RTA00000199R.c.09.1         M00003799A:D09         16824           3116         1/28/98         224         RTA00000199F.b.01.2         M00003779A:D08         19118           3117         1/28/98         216         RTA00000199F.b.01.2         M00003774B:B08         4959           3118         1/28/98         216         RTA00000198R-p.12.1         M00003763D:E10         8878           3119         1/28/98         64         RTA00000199R.c.09.1         M00003763D:E10         8878           3120         1/28/98         64         RTA00000199R.c.09.1         M00003709300A:C09         16824           3120         1/28/98         199         RTA00000199R.c.09.1         M00003800A:C09         16824           3120         1/28/98         146				-	M00003800A:C09	16824
3113         1/28/98         487         RTA00000198F.i.8.1         M00001639A:F10         9807           3113         1/28/98         277         RTA00000199R.c.09.2         M00003800A:C09         16824           3114         1/28/98         199         RTA00000199R.c.09.1         M00003800A:C09         16824           3115         1/28/98         199         RTA00000198R.c.09.1         M00003799A:D09         0           3116         1/28/98         284         RTA00000188AF.m.11.1         M00003774B:B08         4959           3116         1/28/98         216         RTA00000188AF.g.9.1         M00003774B:B08         4959           3118         1/28/98         216         RTA00000198R.p.12.1         M00003763D:E10         8878           3119         1/28/98         542         RTA00000198R.p.12.1         M00003763D:E10         8878           3120         1/28/98         64         RTA00000199R.c.09.1         M00003763D:E10         8878           3120         1/28/98         166         RTA00000199R.c.09.1         M00003763D:E10         8878           3121         1/28/98         146         RTA00000199R.c.09.1         M00001571C:H06         749           3121         1/28/98         248					M00003800A:C09	16824
3113         1/28/98         277         RTA00000198AR.i.08.1         M00001639A:F10         9807           3114         1/28/98         66         RTA00000199F.c.09.1         M00003800A:C09         16824           3114         1/28/98         199         RTA00000199F.c.09.1         M00003800A:C09         16824           3115         1/28/98         224         RTA00000188AF.m.11.1         M00003799A:D09         0           3116         1/28/98         58         RTA00000198F.b.01.2         M00003774B:B08         4959           3118         1/28/98         216         RTA00000198R.p.12.1         M00003763D:E10         8878           3119         1/28/98         542         RTA00000198R.p.12.1         M00003763D:E10         8878           3120         1/28/98         64         RTA00000199F.c.09.1         M00003763D:E10         8878           3120         1/28/98         199         RTA00000199F.c.09.2         M00003800A:C09         16824           3121         1/28/98         146         RTA00000198F.c.09.1         M0000157D:C04         39814           3122         1/28/98         248         RTA00000347F.e.05.1         M00001578D:C04         39814           3123         1/28/98         248         <			487	RTA00000198F.i.8.1	M00001639A:F10	9807
3114         1/28/98         66         RTA00000199F.c.09.2         M00003800A:C09         16824           3114         1/28/98         199         RTA00000199R.c.09.1         M00003800A:C09         16824           3115         1/28/98         224         RTA00000199F.c.09.1         M0000379A:D09         0           3116         1/28/98         58         RTA00000199F.b.01.2         M00003778A:D08         19118           3117         1/28/98         216         RTA00000199F.b.01.2         M00003774B:B08         4959           3118         1/28/98         201         RTA00000198R.p.12.1         M00003769B:D03         2381           3119         1/28/98         64         RTA00000198R.p.12.1         M00003763D:E10         8878           3120         1/28/98         64         RTA00000198R.p.12.1         M00003800A:C09         16824           3120         1/28/98         199         RTA00000198R.p.09.1         M00003800A:C09         16824           3121         1/28/98         146         RTA00000185AF.a.19.2         M00003800A:C09         16824           3122         1/28/98         248         RTA00000347F.e.05.1         M00001578D:C04         39814           3123         1/28/98         778         <		1/28/98	277		M00001639A:F10	9807
3114         1/28/98         199         RTA00000199R.c.09.1         M00003800A:C09         16824           3115         1/28/98         224         RTA00000188AF.m.11.1         M00003799A:D09         0           3116         1/28/98         216         RTA00000199F.b.01.2         M00003778A:B08         49518           3117         1/28/98         216         RTA00000198AF.g.9.1         M00003769B:D03         23081           3118         1/28/98         542         RTA00000198AF.p.18.1         M00003763D:E10         8878           3119         1/28/98         542         RTA00000199R.c.09.1         M00003763D:E10         8878           3120         1/28/98         64         RTA00000199R.c.09.1         M00003763D:E10         8878           3120         1/28/98         199         RTA00000199R.c.09.1         M00003763D:E10         8878           3121         1/28/98         146         RTA00000199R.c.09.1         M00001578D:C04         39814           3121         1/28/98         146         RTA00000185AF.a.19.2         M00001578D:C04         39814           3122         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3123         1/28/98         778		1/28/98	66	RTA00000199F.c.09.2	M00003800A:C09	16824
3115         1/28/98         224         RTA00000188AF.m.11.1         M00003799A:D09         0           3116         1/28/98         58         RTA00000198Pb.01.2         M00003778A:D08         19118           3117         1/28/98         216         RTA00000188AF.g.9.1         M00003774B:B08         4959           3118         1/28/98         201         RTA00000198AF.p.18.1         M00003769B:D03         23081           3119         1/28/98         542         RTA00000198AF.p.12.1         M00003763D:E10         8878           3119         1/28/98         64         RTA00000199R.c.09.1         M00003800A:C09         16824           3120         1/28/98         66         RTA00000199F.c.09.2         M00003800A:C09         16824           3121         1/28/98         146         RTA00000198AF.c.09.2         M0000157BD:C04         39814           3122         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3123         1/28/98         248         RTA00000198AF.c.05.1         M00001578D:C04         39814           3123         1/28/98         147         RTA00000198AF.c.07.1         M00001578D:C04         39814           3124         1/28/98         147		1/28/98			M00003800A:C09	16824
3116         1/28/98         58         RTA00000199F.b.01.2         M00003778A:D08         19118           3117         1/28/98         216         RTA00000188AF.g.9.1         M00003774B:B08         4959           3118         1/28/98         201         RTA00000198AF.p.18.1         M00003763D:E10         8878           3119         1/28/98         542         RTA00000198R.p.12.1         M00003763D:E10         8878           3119         1/28/98         64         RTA00000199R.c.09.1         M00003800A:C09         16824           3120         1/28/98         66         RTA00000199F.c.09.2         M00003800A:C09         16824           3121         1/28/98         146         RTA00000199F.c.09.2         M00001571C:H06         5749           3122         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3122         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3123         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3123         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3124         1/28/98         178			224	RTA00000188AF.m.11.1	M00003799A:D09	0
3117         1/28/98         216         RTA00000188AF.g.9.1         M00003774B:B08         4959           3118         1/28/98         201         RTA00000198AF.p.18.1         M00003769B:D03         23081           3119         1/28/98         542         RTA00000198R.p.12.1         M00003763D:E10         8878           3119         1/28/98         64         RTA00000198AF.p.12.1         M00003763D:E10         8878           3120         1/28/98         199         RTA00000199R.c.09.1         M00003800A:C09         16824           3121         1/28/98         146         RTA00000185AF.a.19.2         M0000157BD:C04         39814           3122         1/28/98         248         RTA0000018Ac.14.1         M00001578D:C04         39814           3123         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3123         1/28/98         248         RTA00000185AF.c.05.1         M00001578D:C04         39814           3124         1/28/98         147         RTA00000185AF.c.24.2         M00001578D:C04         39814           3125         1/28/98         195         RTA0000018AF.c.07.1         M00001578D:C04         39814           3126         1/28/98         171				RTA00000199F.b.01.2	M00003778A:D08	19118
3118         1/28/98         201         RTA00000198AF.p.18.1         M00003769B:D03         23081           3119         1/28/98         542         RTA00000198R.p.12.1         M00003763D:E10         8878           3119         1/28/98         64         RTA00000198AF.p.12.1         M00003763D:E10         8878           3120         1/28/98         199         RTA00000199R.c.09.1         M00003800A:C09         16824           3120         1/28/98         146         RTA00000198R.c.19.2         M0000157BD:C04         39814           3121         1/28/98         248         RTA0000018R.c.14.1         M0000157BD:C04         39814           3122         1/28/98         248         RTA00000198R.c.14.1         M0000157BD:C04         39814           3123         1/28/98         248         RTA00000198R.c.14.1         M0000157BD:C04         39814           3123         1/28/98         778         RTA00000198AF.c.05.1         M0000157BD:C04         39814           3124         1/28/98         147         RTA00000185AF.c.24.2         M0000157BD:C04         39814           3125         1/28/98         171         RTA0000018AF.c.01.1         M0000157BD:C05         19181           3126         1/28/98         525 <td></td> <td></td> <td>216</td> <td>RTA00000188AF.g.9.1</td> <td>M00003774B:B08</td> <td>4959</td>			216	RTA00000188AF.g.9.1	M00003774B:B08	4959
3119         1/28/98         64         RTA00000198AF.p.12.1         M00003763D:E10         8878           3120         1/28/98         199         RTA00000199R.c.09.1         M00003800A:C09         16824           3120         1/28/98         66         RTA00000199F.c.09.2         M00003800A:C09         16824           3121         1/28/98         146         RTA00000185AF.a.19.2         M0000157BD:C04         39814           3122         1/28/98         248         RTA00000347F.e.05.1         M00001578D:C04         39814           3122         2/24/98         778         RTA00000347F.e.05.1         M00001578D:C04         39814           3123         1/28/98         147         RTA00000198R.c.14.1         M00001578D:C04         39814           3123         1/28/98         147         RTA00000198AF.c.10.1         M00001578B:E04         23001           3124         1/28/98         147         RTA00000198AF.c.7.1         M00001578B:E04         23001           3126         1/28/98         171         RTA00000198AF.c.7.1         M00001575D:G05         19181           3127         1/28/98         172         RTA00000198AF.c.7.1         M00001575D:G05         19181           3129         1/28/98         192 <td></td> <td>1/28/98</td> <td>201</td> <td></td> <td>M00003769B:D03</td> <td>23081</td>		1/28/98	201		M00003769B:D03	23081
3120         1/28/98         199         RTA00000199R.c.09.1         M00003800A:C09         16824           3120         1/28/98         66         RTA00000199F.c.09.2         M00003800A:C09         16824           3121         1/28/98         146         RTA00000185AF.a.19.2         M0000157BC:C04         39814           3122         1/28/98         248         RTA00000198R.c.14.1         M0000157BD:C04         39814           3122         2/24/98         778         RTA00000347F.e.05.1         M0000157BD:C04         39814           3123         1/28/98         248         RTA00000198R.c.14.1         M0000157BD:C04         39814           3123         1/28/98         147         RTA00000198AF.c.05.1         M0000157BD:C04         39814           3124         1/28/98         195         RTA00000185AF.c.24.2         M0000157BB:E04         23001           3126         1/28/98         171         RTA00000198AF.c.10.1         M0000157BD:G05         19181           3127         1/28/98         172         RTA00000186AF.p.09.2         M00001575D:G05         19181           3128         1/28/98         192         RTA00000185AF.a.8.1         M00001575B:C09         12171           3129         1/28/98         192		1/28/98	542	•	M00003763D:E10	8878
3120         1/28/98         66         RTA00000199F.c.09.2         M00003800A:C09         16824           3121         1/28/98         146         RTA00000185AF.a.19.2         M00001571C:H06         5749           3122         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3122         2/24/98         778         RTA00000198R.c.14.1         M00001578D:C04         39814           3123         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3123         2/24/98         778         RTA00000198R.c.05.1         M00001578D:C04         39814           3124         1/28/98         147         RTA00000185AF.c.24.2         M00001578B:E04         23001           3125         1/28/98         195         RTA00000198AF.c.01.1         M0000157B:H02         77149           3126         1/28/98         171         RTA00000198AF.c.7.1         M00001575D:G05         19181           3127         1/28/98         172         RTA00000186AF.p.09.2         M00001655C:E04         6879           3128         1/28/98         192         RTA00000185AF.a.8.1         M00001575D:G05         19181           3130         1/28/98         19	3119	1/28/98	64	•	M00003763D:E10	8878
3121         1/28/98         146         RTA00000185AF.a.19.2         M00001571C:H06         5749           3122         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3122         2/24/98         778         RTA00000347F.e.05.1         M00001578D:C04         39814           3123         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3123         2/24/98         778         RTA000000347F.e.05.1         M00001578D:C04         39814           3124         1/28/98         147         RTA000000185AF.c.24.2         M00001578D:C04         39814           3125         1/28/98         195         RTA00000198AF.c.05.1         M00001578D:C04         39814           3126         1/28/98         195         RTA00000198AF.c.07.1         M00001577B:H02         77149           3126         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3127         1/28/98         172         RTA00000185AF.a.8.1         M00001575B:C09         12171           3129         1/28/98         19         RTA00000185AF.a.8.1         M00001567C:H12         22636           3131         1/28/98         492		1/28/98	199		M00003800A:C09	16824
3122         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3122         2/24/98         778         RTA00000347F.e.05.1         M00001578D:C04         39814           3123         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3123         2/24/98         778         RTA00000347F.e.05.1         M00001578D:C04         39814           3124         1/28/98         147         RTA00000185AF.c.24.2         M00001578B:E04         23001           3125         1/28/98         195         RTA00000198AF.c.10.1         M00001577B:H02         77149           3126         1/28/98         171         RTA00000198AF.c.7.1         M00001575D:G05         19181           3126         1/28/98         525         RTA00000186AF.p.09.2         M00001575D:G05         19181           3127         1/28/98         172         RTA00000186AF.p.09.2         M00001575D:G05         19181           3128         1/28/98         230         RTA00000185AF.m.7.1         M00001575D:G05         19181           3130         1/28/98         19         RTA00000185AF.a.8.1         M00001567C:H12         22636           3131         1/28/98         23 </td <td>3120</td> <td>1/28/98</td> <td>66</td> <td>RTA00000199F.c.09.2</td> <td>M00003800A:C09</td> <td>16824</td>	3120	1/28/98	66	RTA00000199F.c.09.2	M00003800A:C09	16824
3122         2/24/98         778         RTA00000347F.e.05.1         M00001578D:C04         39814           3123         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3123         2/24/98         778         RTA00000347F.e.05.1         M00001578D:C04         39814           3124         1/28/98         147         RTA00000185AF.c.24.2         M00001578B:E04         23001           3125         1/28/98         195         RTA00000198AF.c.10.1         M00001577B:H02         77149           3126         1/28/98         171         RTA00000198AF.c.07.1         M00001575D:G05         19181           3126         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3127         1/28/98         172         RTA00000185AF.b.18.1         M00001575B:C09         12171           3128         1/28/98         230         RTA00000185AF.a.8.1         M00001575B:C09         12171           3129         1/28/98         192         RTA00000185AF.a.8.1         M0000157D:A03         4868           3131         1/28/98         23         RTA00000198AF.b.8.1         M00001567C:H12         22636           3132         1/28/98         23 <td>3121</td> <td>1/28/98</td> <td>146</td> <td>RTA00000185AF.a.19.2</td> <td>M00001571C:H06</td> <td>5749</td>	3121	1/28/98	146	RTA00000185AF.a.19.2	M00001571C:H06	5749
3123         1/28/98         248         RTA00000198R.c.14.1         M00001578D:C04         39814           3123         2/24/98         778         RTA00000347F.e.05.1         M00001578D:C04         39814           3124         1/28/98         147         RTA00000185AF.c.24.2         M00001578B:E04         23001           3125         1/28/98         195         RTA00000198AF.c.10.1         M00001577B:H02         77149           3126         1/28/98         171         RTA00000198R.c.07.1         M00001575D:G05         19181           3126         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3127         1/28/98         172         RTA00000186AF.p.09.2         M00001655C:E04         6879           3128         1/28/98         230         RTA00000185AF.m.7.1         M00001575B:C09         12171           3129         1/28/98         192         RTA00000185AF.m.7.1         M00001570D:A03         4868           3131         1/28/98         19         RTA00000185AF.b.8.1         M00001567C:H12         22636           3131         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         23		1/28/98	248	RTA00000198R.c.14.1	M00001578D:C04	39814
3123         2/24/98         778         RTA00000347F.e.05.1         M00001578D:C04         39814           3124         1/28/98         147         RTA00000185AF.c.24.2         M00001578B:E04         23001           3125         1/28/98         195         RTA00000198AF.c.10.1         M00001577B:H02         77149           3126         1/28/98         171         RTA00000198R.c.07.1         M00001575D:G05         19181           3126         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3127         1/28/98         172         RTA00000186AF.p.09.2         M00001655C:E04         6879           3128         1/28/98         230         RTA00000185AR.b.18.1         M00001575B:C09         12171           3129         1/28/98         192         RTA00000185AF.a.8.1         M00001570D:A03         4868           3131         1/28/98         19         RTA00000198AF.b.8.1         M00001567C:H12         22636           3131         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         23         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         357	3122	2/24/98	778	RTA00000347F.e.05.1	M00001578D:C04	39814
3124         1/28/98         147         RTA00000185AF.c.24.2         M00001578B:E04         23001           3125         1/28/98         195         RTA00000198AF.c.10.1         M00001577B:H02         77149           3126         1/28/98         171         RTA00000198R.c.07.1         M00001575D:G05         19181           3126         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3127         1/28/98         172         RTA00000186AF.p.09.2         M00001655C:E04         6879           3128         1/28/98         230         RTA00000185AF.m.7.1         M00001575B:C09         12171           3129         1/28/98         192         RTA00000185AF.a.8.1         M00001570D:A03         4868           3131         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3131         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         23         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         357         RTA00000184AF.o.15.1         M00001567C:H12         22636           3134         1/28/98         30	3123	1/28/98	248	RTA00000198R.c.14.1	M00001578D:C04	39814
3125         1/28/98         195         RTA00000198AF.c.10.1         M00001577B:H02         77149           3126         1/28/98         171         RTA00000198AF.c.07.1         M00001575D:G05         19181           3126         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3127         1/28/98         172         RTA00000186AF.p.09.2         M00001655C:E04         6879           3128         1/28/98         230         RTA00000185AR.b.18.1         M00001575B:C09         12171           3129         1/28/98         192         RTA00000185AF.a.8.1         M00001570D:A03         4868           3130         1/28/98         19         RTA00000198AF.b.8.1         M00001567C:H12         22636           3131         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         357         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         30         RTA00000184AR.o.15.1         M00001561C:F06         0           3134         1/28/98         59	3123	2/24/98	778	RTA00000347F.e.05.1	M00001578D:C04	39814
3126         1/28/98         171         RTA00000198R.c.07.1         M00001575D:G05         19181           3126         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3127         1/28/98         172         RTA00000186AF.p.09.2         M00001655C:E04         6879           3128         1/28/98         230         RTA00000185AR.b.18.1         M00001575B:C09         12171           3129         1/28/98         192         RTA00000185AF.m.7.1         M00001605C:D12         39804           3130         1/28/98         19         RTA00000185AF.a.8.1         M00001570D:A03         4868           3131         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3131         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         23         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         357         RTA00000184AF.o.15.1         M00001567C:H12         22636           3134         1/28/98         30         RTA00000184AF.o.15.1         M00001560D:A03         12605           3135         1/28/98         78	3124	1/28/98	147	RTA00000185AF.c.24.2	M00001578B:E04	23001
3126         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3127         1/28/98         172         RTA00000186AF.p.09.2         M00001655C:E04         6879           3128         1/28/98         230         RTA00000185AR.b.18.1         M00001575B:C09         12171           3129         1/28/98         192         RTA00000185AF.m.7.1         M00001605C:D12         39804           3130         1/28/98         19         RTA00000185AF.a.8.1         M00001570D:A03         4868           3131         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3131         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         357         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         357         RTA00000184AF.o.15.1         M0000156DC:A03         12605           3134         1/28/98         30         RTA00000195AF.b.13.1         M0000156DC:A03         12605           3135         1/28/98         78	3125	1/28/98	195	RTA00000198AF.c.10.1	M00001577B:H02	77149
3127         1/28/98         172         RTA00000186AF.p.09.2         M00001655C:E04         6879           3128         1/28/98         230         RTA00000185AR.b.18.1         M00001575B:C09         12171           3129         1/28/98         192         RTA00000185AF.m.7.1         M00001605C:D12         39804           3130         1/28/98         19         RTA00000185AF.a.8.1         M00001570D:A03         4868           3131         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3131         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         357         RTA00000198AF.b.8.1         M00001567C:H12         22636           3134         1/28/98         30         RTA00000184AR.n.07.2         M00001561C:F06         0           3135         1/28/98         59         RTA00000195AF.b.13.1         M00001560D:A03         12605           3136         1/28/98         525	3126	1/28/98	171	RTA00000198R.c.07.1	M00001575D:G05	19181
3128         1/28/98         230         RTA00000185AR.b.18.1         M00001575B:C09         12171           3129         1/28/98         192         RTA00000185AF.m.7.1         M00001605C:D12         39804           3130         1/28/98         19         RTA00000185AF.a.8.1         M00001570D:A03         4868           3131         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3131         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         357         RTA00000198AF.b.8.1         M00001567C:H12         22636           3134         1/28/98         30         RTA00000184AF.o.15.1         M00001564D:C09         0           3135         1/28/98         30         RTA00000195AF.b.13.1         M00001560D:A03         12605           3136         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3137         1/28/98         303	3126	1/28/98	525	RTA00000198AF.c.7.1	M00001575D:G05	
3129         1/28/98         192         RTA00000185AF.m.7.1         M00001605C:D12         39804           3130         1/28/98         19         RTA00000185AF.a.8.1         M00001570D:A03         4868           3131         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3131         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         357         RTA00000184AF.o.15.1         M00001564D:C09         0           3134         1/28/98         30         RTA00000184AF.o.15.1         M00001561C:F06         0           3135         1/28/98         59         RTA00000195AF.b.13.1         M00001560D:A03         12605           3136         1/28/98         525         RTA0000018AF.c.7.1         M00001575D:G05         19181           3136         1/28/98         303         RTA0000018AR.c.07.1         M00001575D:G05         19181           3137         1/28/98         303 <t< td=""><td>3127</td><td>1/28/98</td><td>172</td><td>RTA00000186AF.p.09.2</td><td></td><td>6879</td></t<>	3127	1/28/98	172	RTA00000186AF.p.09.2		6879
3130         1/28/98         19         RTA00000185AF.a.8.1         M00001570D:A03         4868           3131         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3131         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         357         RTA00000184AF.o.15.1         M00001564D:C09         0           3134         1/28/98         30         RTA00000184AR.n.07.2         M00001561C:F06         0           3135         1/28/98         59         RTA00000195AF.b.13.1         M00001560D:A03         12605           3136         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3137         1/28/98         303         RTA00000186AR.e.03.3         M00001575D:G05         19181           3138         1/28/98         301         RTA00000181AR.i.19.2         M00001452C:B06         16970           3138         1/28/98         301	3128	1/28/98	230	RTA00000185AR.b.18.1		
3131         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3131         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         357         RTA00000184AF.o.15.1         M00001564D:C09         0           3134         1/28/98         30         RTA00000184AR.n.07.2         M00001561C:F06         0           3135         1/28/98         59         RTA00000195AF.b.13.1         M00001560D:A03         12605           3136         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3136         1/28/98         525         RTA00000188AR.e.03.3         M00001575D:G05         19181           3137         1/28/98         303         RTA00000181AR.i.19.2         M00001452C:B06         16970           3138         1/28/98         301         RTA00000181AR.i.19.3         M00001452C:B06         16970	3129	1/28/98	192	RTA00000185AF.m.7.1		
3131         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         357         RTA00000184AF.o.15.1         M00001564D:C09         0           3134         1/28/98         30         RTA00000184AR.n.07.2         M00001561C:F06         0           3135         1/28/98         59         RTA00000195AF.b.13.1         M00001560D:A03         12605           3136         1/28/98         78         RTA00000195AF.b.13.1         M00001560D:A03         12605           3136         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3137         1/28/98         303         RTA00000186AR.e.03.3         M00001575D:G05         19181           3138         1/28/98         301         RTA00000181AR.i.19.2         M00001452C:B06         16970           3138         1/28/98         301         RTA00000181AR.i.19.3         M00001452C:B06         16970	3130	1/28/98	19	•		
3132         1/28/98         23         RTA00000198R.b.08.1         M00001567C:H12         22636           3132         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         357         RTA00000184AF.o.15.1         M00001564D:C09         0           3134         1/28/98         30         RTA00000184AR.n.07.2         M00001561C:F06         0           3135         1/28/98         59         RTA00000195AF.b.13.1         M00001560D:A03         12605           3136         1/28/98         78         RTA00000195AF.b.13.1         M00001575D:G05         19181           3136         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3137         1/28/98         303         RTA00000186AR.e.03.3         M00001623D:C10         22110           3138         1/28/98         301         RTA00000181AR.i.19.2         M00001452C:B06         16970           3138         1/28/98         301         RTA00000181AR.i.19.3         M00001452C:B06         16970	3131	1/28/98	492			
3132         1/28/98         492         RTA00000198AF.b.8.1         M00001567C:H12         22636           3133         1/28/98         357         RTA00000184AF.o.15.1         M00001564D:C09         0           3134         1/28/98         30         RTA00000184AR.n.07.2         M00001561C:F06         0           3135         1/28/98         59         RTA00000195AF.b.13.1         M00001560D:A03         12605           3135         2/24/98         78         RTA00000195AF.b.13.1         M00001560D:A03         12605           3136         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3136         1/28/98         171         RTA00000198R.c.07.1         M00001575D:G05         19181           3137         1/28/98         303         RTA00000186AR.e.03.3         M00001623D:C10         22110           3138         1/28/98         301         RTA00000181AR.i.19.2         M00001452C:B06         16970           3138         1/28/98         301         RTA00000181AR.i.19.3         M00001452C:B06         16970	3131	1/28/98		RTA00000198R.b.08.1		
3133         1/28/98         357         RTA00000184AF.o.15.1         M00001564D:C09         0           3134         1/28/98         30         RTA00000184AR.n.07.2         M00001561C:F06         0           3135         1/28/98         59         RTA00000195AF.b.13.1         M00001560D:A03         12605           3135         2/24/98         78         RTA00000195AF.b.13.1         M00001560D:A03         12605           3136         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3136         1/28/98         171         RTA00000198R.c.07.1         M00001575D:G05         19181           3137         1/28/98         303         RTA00000186AR.e.03.3         M00001623D:C10         22110           3138         1/28/98         295         RTA00000181AR.i.19.2         M00001452C:B06         16970           3138         1/28/98         301         RTA00000181AR.i.19.3         M00001452C:B06         16970	3132	1/28/98	23			
3134         1/28/98         30         RTA00000184AR.n.07.2         M00001561C:F06         0           3135         1/28/98         59         RTA00000195AF.b.13.1         M00001560D:A03         12605           3135         2/24/98         78         RTA00000195AF.b.13.1         M00001560D:A03         12605           3136         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3136         1/28/98         171         RTA00000198R.c.07.1         M00001575D:G05         19181           3137         1/28/98         303         RTA00000186AR.e.03.3         M00001623D:C10         22110           3138         1/28/98         295         RTA00000181AR.i.19.2         M00001452C:B06         16970           3138         1/28/98         301         RTA00000181AR.i.19.3         M00001452C:B06         16970	3132	1/28/98				
3135         1/28/98         59         RTA00000195AF.b.13.1         M00001560D:A03         12605           3135         2/24/98         78         RTA00000195AF.b.13.1         M00001560D:A03         12605           3136         1/28/98         525         RTA00000198AF.c.7.1         M00001575D:G05         19181           3136         1/28/98         171         RTA00000198R.c.07.1         M00001575D:G05         19181           3137         1/28/98         303         RTA00000186AR.e.03.3         M00001623D:C10         22110           3138         1/28/98         295         RTA00000181AR.i.19.2         M00001452C:B06         16970           3138         1/28/98         301         RTA00000181AR.i.19.3         M00001452C:B06         16970	3133	1/28/98 .				
3135       2/24/98       78       RTA00000195AF.b.13.1       M00001560D:A03       12605         3136       1/28/98       525       RTA00000198AF.c.7.1       M00001575D:G05       19181         3136       1/28/98       171       RTA00000198R.c.07.1       M00001575D:G05       19181         3137       1/28/98       303       RTA00000186AR.e.03.3       M00001623D:C10       22110         3138       1/28/98       295       RTA00000181AR.i.19.2       M00001452C:B06       16970         3138       1/28/98       301       RTA00000181AR.i.19.3       M00001452C:B06       16970	3134	1/28/98				
3136       1/28/98       525       RTA00000198AF.c.7.1       M00001575D:G05       19181         3136       1/28/98       171       RTA00000198R.c.07.1       M00001575D:G05       19181         3137       1/28/98       303       RTA00000186AR.e.03.3       M00001623D:C10       22110         3138       1/28/98       295       RTA00000181AR.i.19.2       M00001452C:B06       16970         3138       1/28/98       301       RTA00000181AR.i.19.3       M00001452C:B06       16970	3135	1/28/98				
3136       1/28/98       171       RTA00000198R.c.07.1       M00001575D:G05       19181         3137       1/28/98       303       RTA00000186AR.e.03.3       M00001623D:C10       22110         3138       1/28/98       295       RTA00000181AR.i.19.2       M00001452C:B06       16970         3138       1/28/98       301       RTA00000181AR.i.19.3       M00001452C:B06       16970		2/24/98				
3137       1/28/98       303       RTA00000186AR.e.03.3       M00001623D:C10       22110         3138       1/28/98       295       RTA00000181AR.i.19.2       M00001452C:B06       16970         3138       1/28/98       301       RTA00000181AR.i.19.3       M00001452C:B06       16970						
3138       1/28/98       295       RTΛ00000181AR.i.19.2       M00001452C:B06       16970         3138       1/28/98       301       RTA00000181AR.i.19.3       M00001452C:B06       16970						
3138 1/28/98 301 RTA00000181AR.i.19.3 M00001452C:B06 16970						
· · · · · · · · · · · · · · · · · · ·						
199	3138	1/28/98	301	RTA00000181AR.i.19.3	M00001452C:B06	16970
				199		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
2120	Appin	Appln	P.T. 4.00000107 4 11 1 00 0		
3139 3140	1/28/98	232	RTA00000186AF.j.03.2	M00001638A:E07	0
	1/28/98	309	RTA00000198AF.h.12.1	M00001632C:A02	9503
3141	1/28/98	268	RTA00000186AF.h.01.2	M00001632A:F12	0
3142	1/28/98	267	RTA00000186AF.g.11.2	M00001630B:H09	5214
3143 3143	1/28/98	83	RTA00000186AF.f.24.2	M00001629B:E06	0
	1/28/98	336	RTA00000186AF.f.24.1	M00001629B:E06	0
3144	1/28/98	222	RTA00000185AF.i.4.1	M00001594A:B12	13942
3145	1/28/98	217	RTA00000198AF.h.3.1	M00001625D:C07	22562
3146	1/28/98	196	RTA00000198F.e.10.1	M00001599B:E09	9727
3147	1/28/98	372	RTA00000186AF.d.23.1	M00001623B:G07	22187
3148	1/28/98	302	RTA00000186AF.d.1.2	M00001621C:C08	40044
3149	1/28/98	262	RTA00000186AF.c.17.1	M00001619D:G05	8551
3150	1/28/98	358	RTA00000198AF.g.7.1	M00001616C:C09	13386
3151	1/28/98	166	RTA00000198AF.f.21.1	M00001614D:D09	22676
3152	1/28/98	277	RTA00000198AR.i.08.1	M00001639A:F10	9807
3152	1/28/98	487	RTA00000198F.i.8.1	M00001639A:F10	9807
3153	1/28/98	336	RTA00000186AF.f.24.1	M00001629B:E06	0
3153	1/28/98	83	RTA00000186AF.f.24.2	M00001629B:E06	0
3154 3155	1/28/98	352	RTA00000197AF.p.3.1	M00001550A:A03	7239
3156	1/28/98	251	RTA00000192AF.n.13.1	M00004197D:H01	8210
3157	1/28/98	41	RTA00000184F.k.12.1	M00001557D:D09	8761
3157	1/28/98 1/28/98	731	RTA00000184F.k.02.1	M00001557B:H10	5192
3159		42	RTA00000184F.j.21.1	M00001557A:D02	7065
3160	1/28/98	42	RTA00000184F.j.21.1	M00001557A:D02	7065
3161	1/28/98 1/28/98	302 560	RTA00000186AF.d.1.2	M00001621C:C08	40044
3162	1/28/98	558	RTA00000184AF.i.23.3	M00001556A:F11	1577
3163	1/28/98	256	RTA00000186AR,h.14.1	M00001632D:H07	0
3164	1/28/98	682	RTA00000184AR.e.15.1	M00001549C:E06	16347
3165	1/28/98	129	RTA00000125A.j.16.1	M00001544A:E06	0
3165	1/28/98	108	RTA00000134A.d.10.1 RTA00000183AR.h.23.2	M00001528A:F09	18957
3165	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3166	1/28/98	129	RTA00000133AR.ii.23.1 RTA00000134A.d.10.1	M00001528A:F09	18957
3166	1/28/98	108	RTA00000134A.d.10.1 RTA00000183AR.h.23.2	M00001528A:F09 M00001528A:F09	18957
3166	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3167	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3167	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3167	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957 18957
3168	2/24/98	531	RTA00000345F.n.12.1	M00001528A:C04	7337
3169	1/28/98	324	RTA00000184F.j.06.1	M00001526A:C04 M00001556B:G02	11294
3170	2/24/98	604	RTA00000351R.c.13.1	M00001330B:G02 M00003747D:C05	11476
3171	1/28/98	301	RTA00000181AR.i.19.3	M00003747B:C03	16970
3171	1/28/98	295	RTA00000181AR.i.19.2	M00001452C:B06	16970
3172	1/28/98	231	RTA00000192AF.1.13.2	M00001432C:B00 M00004185C:C03	11443
3173	1/28/98	634	RTA00000192AF.j.6.1	M00004183C:C03	11443
3174	1/28/98	165	RTA00000192AF.g.23.1	M00004172C:D08	6455
3175	1/28/98	574	RTA00000192AF.f.3.1	M00004137C:A09	5257
3176	1/28/98	146	RTA00000185AF.a.19.2	M00004740C:C17	5749
3177	1/28/98	651	RTA00000189AR.d.22.2	M00001371C:1100 M00003844C:B11	6539
3178	1/28/98	161	RTA00000183AF.e.23.2	M00003044C:B11	0339
					U

SEQ ID NO:	Filing Date of	SEQ ID NO: in	Sequence Name	Clone Name	Cluster ID
	Priority	Priority			
2170	Appln	Appln	DTA0000197AB 2 2	M00001682C:B12	17055
3179	1/28/98	475	RTA00000187AR.m.3.3 RTA00000187AF.I.7.1	M00001682C:B12	17033
3180	2/24/98	39 228	RTA00000187AP.I.7.1 RTA00000187AR.h.15.2	M00001680D:F08	6660
3181	1/28/98 2/24/98	228 465	RTA00000187AR.II.13.2 RTA00000350R.p.18.1	M00001679A.700	11460
3182 3183	1/28/98	575	RTA00000330K.p.18.1 RTA00000186AF.I.12.2	M00001676B:103	19267
3184	2/24/98	700	RTA00000350R.m.14.1	M00001643A:C12	39171
3185	1/28/98	261	RTA00000330K.iii.14.1 RTA00000192AF.a.24.1	M00001044C:B07	13183
3186	1/28/98	236	RTA00000132A1.a.24.1 RTA00000183AR.h.23.1	M000011146:F11	18957
3186	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3186	1/28/98	129	RTA00000133AR.ii.25.2	M00001528A:F09	18957
3187	1/28/98	398	RTA00000177AR.I.13.3	M00001353A:G12	8078
3188	1/28/98	645	RTA000001777AF.k.9.1	M00001353A:E02	16245
3189	1/28/98	283	RTA000001777AF.i.8.4	M00001350A:H01	7187
3190	1/28/98	361	RTA00000177AR.g.16.4	M00001347A:B10	13576
3191	1/28/98	680	RTA00000177AF.f.10.1	M00001345A:E01	6420
3192	1/28/98	632	RTA000001777103.1	M00001512D:G09	3956
3192	1/28/98	630	RTA00000183AR.g.03.2	M00001512D:G09	3956
3193	1/28/98	702	RTA00000177AR.b.8.5	M00001340B:A06	17062
3194	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
3194	1/28/98	493	RTA00000177AF.m.17.1	M00001355B:G10	14391
3194	1/28/98	337	RTA00000177AR.m.17.3	M00001355B:G10	14391
3195	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3195	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957
3195	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3196	1/28/98	129	RTA00000134A.d.10.1	M00001528A:F09	18957
3196	1/28/98	236	RTA00000183AR.h.23.1	M00001528A:F09	18957
3196	1/28/98	108	RTA00000183AR.h.23.2	M00001528A:F09	18957
3197	1/28/98	435	RTA00000182AR.c.22.1	M00001467A:D08	16283
3198	1/28/98	635	RTA00000181AF.p.7.3	M00001460A:E01	38773
3199	1/28/98	362	RTA00000197AR.c.24.1	M00001450A:B12	82498
3200	2/24/98	442	RTA00000347F.b.02.1	M00001450A:A02	39304
3201	1/28/98	265	RTA00000177AF.e.14.1	M00001343D:H07	23255
3202	1/28/98	270	RTA00000178R.I.08.1	M00001383A:C03	39648
3203	1/28/98	472	RTA00000192AF.p.17.1	M00004214C:H05	11451
3204	1/28/98	603	RTA00000183AR.d.11.3	M00001504D:G06	6420
3205	1/28/98	519	RTA00000183AF.a.24.2	M00001499B:A11	10539
3206	1/28/98	435	RTA00000182AR.c.22.1	M00001467A:D08	16283
3207	2/24/98	158	RTA00000348R.j.16.1	M00001410A:D07	7005
3208	1/28/98	411	RTA00000179AF.j.13.3	M00001400B:H06	0
3209	1/28/98	742	RTA00000177AF.m.1.1	M00001353D:D10	14929
3210	1/28/98	270	RTA00000178R.l.08.1	M00001383A:C03	39648
3211	1/28/98	337	RTA00000177AR.m.17.3	M00001355B:G10	14391
3211	1/28/98	493	RTA00000177AF.m.17.1	M00001355B:G10	14391
3211	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
3212	1/28/98	297	RTA00000178AF.f.9.3	M00001371C:E09	7172
3213	1/28/98	33	RTA00000178AR.a.20.1	M00001362C:H11	945
3213	2/24/98	979	RTA00000345F.b.17.1	M00001362C:H11	945
3214	1/28/98	33	RTA00000178AR.a.20.1	M00001362C:H11	945
3214	2/24/98	979	RTA00000345F.b.17.1	M00001362C:H11	945
3215	1/28/98	466	RTA00000177AF.p.20.1	M00001361A:A05	4141
			201		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
3216	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
3216	1/28/98	493	RTA00000177AF.m.17.1	M00001355B:G10	14391
3216	1/28/98	337	RTA00000177AR.m.17.3	M00001355B:G10	14391
3217	1/28/98	632	RTA00000183AR.g.03.1	M00001512D:G09	3956
3217	1/28/98	630	RTA00000183AR.g.03.2	M00001512D:G09	3956
3218	1/28/98	391	RTA00000179AF.e.20.3	M00001396A:C03	4009
3219	1/28/98	370	RTA00000179AF.c.15.3	M00001392D:H06	2995
3219	1/28/98	460	RTA00000179AF.c.15.1	M00001392D:H06	2995
3220	1/28/98	47	RTA00000192AF.m.12.1	M00004191D:B11	0
3221	1/28/98	438	RTA00000180AR.g.03.4	M00001425A:C11	9024
3221	1/28/98	95	RTA00000180AF.g.3.1	M00001425A:C11	9024
3222	1/28/98	438	RTA00000180AR.g.03.4	M00001425A:C11	9024
3222	1/28/98	95	RTA00000180AF.g.3.1	M00001425A:C11	9024
3223	1/28/98	320	RTA00000196AF.m.13.1	M00001415B:E09	16290
3224	1/28/98	365	RTA00000196F.I.20.2	M00001410B:G05	22678
3225	1/28/98	80	RTA00000196AF.p.13.2	M00001432A:E06	6125
3226	1/28/98	179	RTA00000179AF.f.20.3	M00001397B:B09	16154
3227	1/28/98	379	RTA00000180AF.I.06.2	M00001433A:G07	5625
3228	1/28/98	460	RTA00000179AF.c.15.1	M00001392D:H06	2995
3228	1/28/98	370	RTA00000179AF.c.15.3	M00001392D:H06	2995
3229	1/28/98	107	RTA00000196R.i.13.1	M00001390A:A09	9857
3230	1/28/98	120	RTA00000178AR.m.19.5	M00001384D:H07	0
3230	1/28/98	377	RTA00000178AF.m.19.1	M00001384D:H07	0
3231	1/28/98	120	RTA00000178AR.m.19.5	M00001384D:H07	0
3231	1/28/98	377	RTA00000178AF.m.19.1	M00001384D:H07	0
3232	1/28/98	384	RTA00000196AF.h.17.1	M00001384C:F12	39215
3233	1/28/98	182	RTA00000196AF.h.16.1	M00001384C:E03	39895
3234	1/28/98	105	RTA00000179AF.g.12.3	M00001398A:G03	36390
3235	1/28/98	252	RTA00000181AF.e.18.3	M00001448D:C09	8
3235	1/28/98	253	RTA00000181AF.e.17.3	M00001448D:C09	8
3236	1/28/98	301	RTA00000181AR.i.19.3	M00001452C:B06	16970
3236	1/28/98	295	RTA00000181AR.i.19.2	M00001452C:B06	16970
3237	1/28/98	288	RTA00000181AR.i.06.3	M00001452A:C07	19119
3237	2/24/98	198	RTA00000339R.I.14.1	M00001452A:C07	19119
3238	1/28/98	288	RTA00000181AR.i.06.3	M00001452A:C07	19119
3238	2/24/98	198	RTA00000339R.I.14.1	M00001452A:C07	19119
3239	1/28/98	109	RTA00000197AF.d.12.1	M00001451D:C10	39546
3240	1/28/98	149	RTA00000181AR.h.06.3	M00001450D:D04	87226
3241	1/28/98	75	RTA00000180AR.h.19.2	M00001428A:H10	84182
3242	1/28/98	21	RTA00000131A.g.19.2	M00001449A:G10	36535
3243	1/28/98	308	RTA00000178AF.j.20.1	M00001380C:E05	15066
3244	1/28/98	253	RTA00000181AF.e.17.3	M00001448D:C09	8
3244	1/28/98	252	RTA00000181AF.e.18.3	M00001448D:C09	8
3245	1/28/98	252	RTA00000181AF.e.18.3	M00001448D:C09	8
3245	1/28/98	253	RTA00000181AF.e.17.3	M00001448D:C09	8
3246	1/28/98	253	RTA00000181AF.e.17.3	M00001448D:C09	8
3246	1/28/98	252	RTA00000181AF.e.18.3	M00001448D:C09	8
3247	1/28/98	136	RTA00000197AF.c.10.1	M00001448B:F06	10400
3248	1/28/98	177	RTA00000197AF.c.3.1	M00001447C:C01	3145
3249	1/28/98	204	RTA00000180AR.o.5.2	M00001437D:C04	7848
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SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
3250	1/28/98	362	RTA00000197AR.c.24.1	M00001450A:B12	82498
3251	1/28/98	81	RTA00000196AF.b.15.1	M00001347B:E01	5102
3252	1/28/98	342	RTA00000196AF.d.10.1	M00001354C:B06	22256
3253	1/28/98	113	RTA00000196AF.d.09.1	M00001354B:B10	16934
3254	1/28/98	463	RTA00000177AR.k.23.4	M00001352D:D02	35550
3254	1/28/98	168	RTA00000177AR.k.23.1	M00001352D:D02	35550
3255	1/28/98	463	RTA00000177AR.k.23.4	M00001352D:D02	35550
3255	1/28/98	168	RTA00000177AR.k.23.1	M00001352D:D02	35550
3256	1/28/98	135	RTA00000196AF.c.22.1	M00001352D:C05	22548
3257	1/28/98	270	RTA00000178R.I.08.1	M00001383A:C03	39648
3258	1/28/98	359	RTA00000196AF.b.17.1	M00001348A:D04	12193
3259	1/28/98	493	RTA00000177AF.m.17.1	M00001355B:G10	14391
3259	1/28/98	337	RTA00000177AR.m.17.3	M00001355B:G10	14391
3259	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
3260	1/28/98	361	RTA00000177AR.g.16.4	M00001347A:B10	13576
3261	1/28/98	265	RTA00000177AF.e.14.1	M00001343D:H07	23255
3262	1/28/98	56	RTA00000177AF.e.9.1	M00001343D:C04	37442
3263	1/28/98	48	RTA00000177AR.a.23.5	M00001339D:G02	6995
3264	2/24/98	308	RTA00000353R.d.11.1	M00004692A:H08	0
3265	1/28/98	164	RTA00000193AR.i.14.4	M00004307C:A06	9457
3266	1/28/98	283	RTA00000177AF.i.8.4	M00001350A:H01	7187
3267	1/28/98	15	RTA00000177AR.n.8.1	M00001356D:F06	4188
3267	1/28/98	89	RTA00000177AF.n.8.3	M00001356D:F06	4188
3268	1/28/98	383	RTA00000199F.f.20.2	M00003847B:G03	0
3269	1/28/98	132	RTA00000178AF.f.20.3	M00001372C:F07	39881
3270	1/28/98	296	RTA00000196AF.f.20.1	M00001371D:G01	22774
3271	1/28/98	297	RTA00000178AF.f.9.3	M00001371C:E09	7172
3272	1/28/98	240	RTA00000178AF.e.1.1	M00001369A:H12	2664
3273	1/28/98	16	RTA00000196AF.e.16.1	M00001363C:H02	39252
3274	1/28/98	112	RTA00000177AF.m.8.1	M00001354C:C10	8010
3275	1/28/98	154	RTA00000196F.e.7.1	M00001360D:E11	1039
3276	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
3276	1/28/98	493	RTA00000177AF.m.17.1	M00001355B:G10	14391
3276	1/28/98	337 .	RTA00000177AR.m.17.3	M00001355B:G10	14391
3277	1/28/98	89	RTA00000177AF.n.8.3	M00001356D:F06	4188
3277	1/28/98	15	RTA00000177AR.n.8.1	M00001356D:F06	4188
3278	1/28/98	493	RTA00000177AF.m.17.1	M00001355B:G10	14391
3278	1/28/98	337	RTA00000177AR.m.17.3	M00001355B:G10	14391
3278	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
3279	1/28/98	337	RTA00000177AR.m.17.3	M00001355B:G10	14391
3279	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
3279	1/28/98	493	RTA00000177AF.m.17.1	M00001355B:G10	14391
3280	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
3280	1/28/98	493	RTA00000177AF.m.17.1	M00001355B:G10	14391
3280	1/28/98	337	RTA00000177AR.m.17.3	M00001355B:G10	14391
3281	1/28/98	337	RTA00000177AR.m.17.3	M00001355B:G10	14391
3281	1/28/98	493	RTA00000177AF.m.17.1	M00001355B:G10	14391
3281	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
3282	1/28/98	169	RTA00000196AF.g.24.1	M00001380C:F02	8685
3283	1/28/98	363	RTA00000196AF.e.14.1	M00001362C:A10	12850

SEQ ID NO:	Date of	SEQ ID NO: in	Sequence Name	Clone Name	Cluster ID
	Priority	Priority			
	Appln	Appln			
3284	1/28/98	92	RTA00000198AF.j.18.1	M00001653B:G07	22759
3284	1/28/98	433	RTA00000198R.j.18.1	M00001653B:G07	22759
3285	1/28/98	537	RTA00000188AF.g.14.1	M00003774C:D02	0
3286	1/28/98	434	RTA00000187AR.d.2.2	M00001664C:H10	4892
3287	1/28/98	703	RTA00000198F.I.09.1	M00001664B:D06	3611
3288	1/28/98	430	RTA00000198R.k.23.1	M00001661B:C08	8995
3288	1/28/98	294	RTA00000198AF.k.23.1	M00001661B:C08	8995
3289	1/28/98	294	RTA00000198AF.k.23.1	M00001661B:C08	8995
3289	1/28/98	430	RTA00000198R.k.23.1	M00001661B:C08	8995
3290	1/28/98	754	RTA00000187AF.I.11.1	M00001681A:F03	4482
3291	1/28/98	732	RTA00000186AF.p.01.2	M00001654D:G11	40440
3292	1/28/98	475	RTA00000187AR.m.3.3	M00001682C:B12	17055
3293	1/28/98	433	RTA00000198R.j.18.1	M00001653B:G07	22759
3293	1/28/98	92	RTA00000198AF.j.18.1	M00001653B:G07	22759
3294	1/28/98	555	RTA00000198AF.j.08.1	M00001651B;A11	10983
3295	1/28/98	399	RTA00000186AF.m.15.2	M00001649C:B10	40122
3296	1/28/98	575	RTA00000186AF.1.12.2	M00001645A:C12	19267
3297	1/28/98	666	RTA00000198F.i.10.1	M00001640B:F03	12792
3298	1/28/98	654	RTA00000186AF.j.21.2	M00001639D:B07	22506
3299	1/28/98	670	RTA00000186AF.p.17.3	M00001656B:A07	38383
3300	1/28/98	393	RTA00000188AF.b.14.1	M00003754D:D02	0
3301	1/28/98	422	RTA00000189AF.b.12.1	M00003829B:G03	17233
3301	1/28/98	210	RTA00000189AR.b.12.1	M00003829B:G03	17233
3302	1/28/98	587	RTA00000199F.a.3.1	M00003772D:E10	16617
3303	1/28/98	394	RTA00000198AF.p.22.1	M00003771A:G10	0
3304	1/28/98	542	RTA00000198R.p.12.1	M00003763D:E10	8878
3304	1/28/98	64	RTA00000198AF.p.12.1	M00003763D:E10	8878
3305	1/28/98	64	RTA00000198AF.p.12.1	M00003763D:E10	8878
3305	1/28/98	542	RTA00000198R.p.12.1	M00003763D:E10	8878
3306	1/28/98	465	RTA00000187AF.k.20.1	M00001680B:C01	3648
3307	1/28/98	423	RTA00000188AR.b.17.1	M00003755A:B03	10662
3308	1/28/98	711	RTA00000198F.i.2.1	M00001637B:E07	8076
3309	1/28/98	497	RTA00000198AF.o.09.1	M00003751B:A05	4310
3309	1/28/98	506	RTA00000198R.o.09.1	M00003751B:A05	4310
3310	1/28/98	506	RTA00000198R.o.09.1	M00003751B:A05	4310
3310	1/28/98	497	RTA00000198AF.o.09.1	M00003751B:A05	4310
3311	1/28/98	432	RTA00000198AF.o.05.1	M00003750A:D01	26702
3311	1/28/98	49	RTA00000198R.o.05.1	M00003750A:D01	26702
3312	1/28/98	49	RTA00000198R.o.05.1	M00003750A:D01	26702
3312	1/28/98	432	RTA00000198AF.o.05.1	M00003750A:D01	26702
3313	1/28/98	585	RTA00000198AF.n.18.1	M00001771A:A07	16715
3314	1/28/98	527	RTA00000198R.m.23.1	M00001684B:G03	38469
3315	1/28/98	471	RTA00000188AF.e.2.1	M00003763B:H01	0
3316	1/28/98	171	RTA00000198R.c.07.1	M00001575D:G05	19181
3316	1/28/98	525	RTA00000198AF.c.7.1	M00001575D:G05	19181
3317	1/28/98	557	RTA00000198AF.d.9.1	M00001587D:A10	8841
3318	1/28/98	523	RTA00000198AF.d.4.1	M00001586D:E02	22435
3319	1/28/98	441	RTA00000185AF.e.6.1	M00001583B:E10	0
3320	1/28/98	439	RTA00000185AF.d.14.2	M00001579D:G07	8071
3321	1/28/98	561	RTA00000185AR.d.10.1	M00001579C:H10	0
			20.4		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
3322	1/28/98	277	RTA00000198AR.i.08.1	M00001639A:F10	9807
3322	1/28/98	487	RTA00000198F.i.8.1	M00001639A:F10	9807
3323	1/28/98	525	RTA00000198AF.c.7.1	M00001575D:G05	19181
3323	1/28/98	171	RTA00000198R.c.07.1	M00001575D:G05	19181
3324	2/24/98	317	RTA00000195AF.b.21.1	M00001595B:A09	39055
3324	1/28/98	602	RTA00000195AF.b.21.1	M00001595B:A09	39055
3325	1/28/98	507	RTA00000198AF.c.5.1	M00001573D:F10	53802
3326	1/28/98	414	RTA00000185AR.b.15.1	M00001573D:F04	39813
3326	1/28/98	428	RTA00000185AF.b.15.2	M00001573D:F04	39813
3327	1/28/98	428	RTA00000185AF.b.15.2	M00001573D:F04	39813
3327	1/28/98	414	RTA00000185AR.b.15.1	M00001573D:F04	39813
3328	1/28/98	414	RTA00000185AR.b.15.1	M00001573D:F04	39813
3328	1/28/98	428	RTA00000185AF.b.15.2	M00001573D:F04	39813
3329	1/28/98	428	RTA00000185AF.b.15.2	M00001573D:F04	39813
3329	1/28/98	414	RTA00000185AR.b.15.1	M00001573D:F04	39813
3330	1/28/98	392	RTA00000185AF.b.11.2	M00001573C:D03	9024
3331	1/28/98	549	RTA00000198AF.c.16.1	M00001579C:B11	26801
3332	1/28/98	628	RTA00000198AF.g.16.1	M00001621D:D03	6602
3333	1/28/98	616	RTA00000188AF.m.07.1	M00003798D:E03	23183
3334	1/28/98	489	RTA00000186AF.h.22.1	M00001634B:C10	16485
3335	1/28/98	655	RTA00000186AF.g.8.2	M00001630B:A11	8065
3336	1/28/98	592	RTA00000186AF.e.18.1	M00001624C:A06	0
3337	1/28/98	713	RTA00000198AF.g.21.1	M00001624A:F09	6273
3338	1/28/98	554	RTA00000186AR.e.07.4	M00001623D:G03	4175
3338	1/28/98	400	RTA00000186AR.e.07.3	M00001623D:G03	4175
3339	1/28/98	467	RTA00000195AF.b.19.1	M00001589A:D12	77678
3340	1/28/98	646	RTA00000186AF.d.24.1	M00001623C:H07	3114
3341	1/28/98	740	RTA00000198AF.d.15.1	M00001590C:H08	5997
3342	1/28/98	504	RTA00000198AF.g.2.1	M00001615C:D02	16640
3343	1/28/98	470	RTA00000198AF.f.16.1	M00001614A:E06	0
3344	1/28/98	388	RTA00000185AF.n.17.1	M00001609B:A11	5336
3345	1/28/98	495	RTA00000185AF.j.21.1	M00001597A:E12	0
3346	2/24/98	317	RTA00000195AF.b.21.1	M00001595B:A09	39055
3346	1/28/98	602	RTA00000195AF.b.21.1	M00001595B:A09	39055
3347	1/28/98	487	RTA00000198F.i.8.1	M00001639A:F10	9807
3347	1/28/98	277	RTA00000198AR.i.08.1	M00001639A:F10	9807
3348	1/28/98	554	RTA00000186AR.e.07.4	M00001623D:G03	4175
3348	1/28/98	400	RTA00000186AR.e.07.3	M00001623D:G03	4175 0
3349	1/28/98	699	RTA00000178AF.a.12.1	M00001362B:H06 M00003773B:G01	
3350	1/28/98	416	RTA00000199F.a.5.1 RTA00000178AR.h.22.3	M00003773B:G01 M00001376B:A08	22134
3351	1/28/98	656	RTA00000178AR.h.22.2	M00001376B:A08	19230 19230
3351 3351	1/28/98 2/24/98	657 · 1137	RTA00000178AR.II.22.2 RTA00000345F.d.03.1	M00001376B:A08	19230
3352	1/28/98	656	RTA000003431.d.03.1 RTA00000178AR.h.22.3	M00001376B:A08	19230
3352	1/28/98	657	RTA00000178AR.h.22.2	M00001376B:A08	19230
3352	2/24/98	1137	RTA00000178AR.II.22.2 RTA00000345F.d.03.1	M00001376B:A08	19230
3353	1/28/98	522	RTA00000343F.d.03.1 RTA00000178AR.h.17.2	M00001376B.A08	23824
3353	2/24/98	1095	RTA00000176AR.ii.17.2	M00001376A:C05	23824
3354	1/28/98	522	RTA000003431.C.12.17 RTA00000178AR.h.17.2	M00001376A:C05	23824
3354	2/24/98	1095	RTA00000178AR.II.17.2 RTA00000345F.c.12.1	M00001376A:C05	23824
J. J.T	4127170	1075	205		2502T

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appin	Appln			
3355	1/28/98	656	RTA00000178AR.h.22.3	M00001376B:A08	19230
3355	1/28/98	657	RTA00000178AR.h.22.2	M00001376B:A08	19230
3355	2/24/98	1137	RTA00000345F.d.03.1	M00001376B:A08	19230
3356	1/28/98	566	RTA00000195F.a.4.1	M00001372C:G12	20470
3357	1/28/98	657	RTA00000178AR.h.22.2	M00001376B:A08	19230
3357	1/28/98	656	RTA00000178AR.h.22.3	M00001376B:A08	19230
3357	2/24/98	1137	RTA00000345F.d.03.1	M00001376B:A08	19230
3358	1/28/98	605	RTA00000196F.e.9.1	M00001361A:H07	23300
3359	1/28/98	532	RTA00000177AF.o.4.1	M00001358C:C06	0
3360	1/28/98	493	RTA00000177AF.m.17.1	M00001355B:G10	14391
3360	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
3360	1/28/98	337	RTA00000177AR.m.17.3	M00001355B:G10	14391
3361	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
3361	1/28/98	493	RTA00000177AF.m.17.1	M00001355B:G10	14391
3361	1/28/98	337	RTA00000177AR.m.17.3	M00001355B:G10	14391
3362	1/28/98	337	RTA00000177AR.m.17.3	M00001355B:G10	14391
3362	1/28/98	493	RTA00000177AF.m.17.1	M00001355B:G10	14391
3362	1/28/98	330	RTA00000177AR.m.17.4	M00001355B:G10	14391
3363	1/28/98	742	RTA00000177AF.m.1.1	M00001353D:D10	14929
3364	1/28/98	547	RTA00000196AF.g.8.1	M00001335B:G12	39665
3365	1/28/98	510	RTA00000178AF.n.23.1	M00001373B:G12	3298
3366	1/28/98	606	RTA00000179AR.e.01.4	M00001395A:C09	2493
3367	2/24/98	1065	RTA00000195R.a.06.1	M00001395A:E04	35265
3367	1/28/98	595	RTA00000195R.a.06.1	M00001394A:E04	35265
3368	2/24/98	1065	RTA00000195R.a.06.1	M00001394A:E04	35265 35265
3368	1/28/98	595	RTA00000195R.a.06.1	M00001394A:E04	35265 35265
3369	1/28/98	370	RTA00000179AF.c.15.3	M0000139471:E04 M00001392D:H06	2995
3369	1/28/98	460	RTA00000179AF.c.15.1	M00001392D:H06	2995
3370	1/28/98	370	RTA00000179AF.c.15.3	M00001392D:H06	2995
3370	1/28/98	460	RTA00000179AF.c.15.1	M00001392D:H06	2995
3371	1/28/98	657	RTA00000178AR.h.22.2	M00001372B:1100	19230
3371	1/28/98	656	RTA00000178AR.h.22.3	M00001376B:A08	19230
3371	2/24/98	1137	RTA00000345F.d.03.1	M00001376B:A08	19230
3372	1/28/98	675	RTA00000179AR.b.21.3	M00001370B:R00	4366
3372	2/24/98	1264	RTA00000345F.e.13.1	M00001392C:D05	4366
3373	1/28/98	168	RTA00000177AR.k.23.1	M00001352D:D03	35550
3373	1/28/98	463	RTA00000177AR.k.23.4	M00001352D:D02	35550
3374	1/28/98	652	RTA00000178AR.m.21.4	M00001385A:F12	7861
3374	1/28/98	653	RTA00000178AR.m.21.5	M00001385A:F12	7861
3375	1/28/98	653	RTA00000178AR.m.21.5	M00001305/K:F12	7861
3375	1/28/98	652	RTA00000178AR.m.21.4	M00001385A:F12	7861
3376	1/28/98	672	RTA00000196AF.h.09.1	M00001383B:F12	8015
3377	1/28/98	668	RTA00000178AF.i.17.1	M00001302B:F12	0
3378	1/28/98	746	RTA00000178AF.i.01.2	M000013776B:F03	4
3379	1/28/98	656	RTA00000178AR.h.22.3	M00001376B:A08	
3379	1/28/98	657	RTA00000178AR.h.22.2	M00001370B:A08	19230 19230
3379	2/24/98	1137	RTA00000345F.d.03.1	M00001370B:A08	19230
3380	1/28/98	675	RTA00000179AR.b.21.3	M00001370B:A08	4366
3380	2/24/98	1264	RTA00000345F.e.13.1	M00001392C:D05	4366
3381	1/28/98	651	RTA00000189AR.d.22.2	M00001372C:D03	4306 6539
			306		0337

SEQ ID NO:	Filing Date of	SEQ ID NO: in	Sequence Name	Clone Name	Cluster ID
	Priority	Priority			
3382	Appln 1/28/98	Appln 444	RTA00000189AF.I.16.1	M00003879A:G05	0
3383	1/28/98	648	RTA00000189Ai .i.10.1	M00003878C:E04	7
3384	2/24/98	678	RTA000001951 II.911	M00003870C:207	Ó
3384	1/28/98	412	RTA00000195AF.c.24.1	M00003860D:H07	0
3385	1/28/98	412	RTA00000175741.c.24.1	M00003860D:H07	0
3385	2/24/98	678	RTA00000195AF.c.24.1	M00003860D:H07	Ö
3386	1/28/98	484	RTA00000199F.g.20.2	M00003860D:A01	15767
3387	1/28/98	398	RTA000001771.g.20.2	M000033003:701	8078
3388	1/28/98	556	RTA00000177AR.I.13.3 RTA00000199F.f.17.2	M0000133371:G12 M00003845D:B04	22905
3389	1/28/98	545	RTA000001991.1.17.2 RTA00000196F.a.2.1	M00003043B:B04 M00001338B:E02	3575
3390	1/28/98	406	RTA000001901.a.2.1 RTA00000199F.f.09.2	M00001330B:E02 M00003842B:D09	22907
3390	1/28/98	78	RTA000001991.1.09.2	M00003842B:D09	22907
3390 3391	1/28/98	78 78	RTA00000199R.f.09.1	M00003842B:D09	22907
3391	1/28/98	406	RTA00000199K.1.09.1 RTA00000199F.f.09.2	M00003842B:D09	22907
	1/28/98	692	RTA00000199F.1.09.2	M00003842B:D09 M00003820B:C05	0
3392	1/28/98	458	RTA00000199P.e.4.1	M00003820B:C05	24191
3393		43 <b>6</b> 755	RTA00000199R.u.10.1 RTA00000199F.c.21.2	M00003812C:A03	5070
3394	1/28/98	505	RTA00000199F.C.21.2 RTA00000188AF.n.03.1	M00003803C:D09	9443
3395	1/28/98	303 714		M00003801B.B10 M00003853D:D03	0
3396	1/28/98	714 724	RTA00000199R.g.07.1 RTA00000177AR.f.15.4	M00003833D:D03	9062
3397	1/28/98	623	RTA00000177AK.1.13.4 RTA00000198R.b.24.1	M00001543B.E10 M00001571D:B11	19047
3398	1/28/98	023 748	RTA00000198AF.b.24.1	M00001571D:B11	19047
3398	1/28/98	748 395	RTA00000196R.c.21.2	M00001371D.B11	0
3399	1/28/98	593	RTA00000196R.c.14.2	M00001352B:F04	23105
3400	1/28/98		RTA00000196K.c.14.2 RTA00000196AF.c.14.1	M00001352B:F04	23105
3400	1/28/98	485	RTA00000196AF.c.14.1	M00001352B:F04	23105
3401	1/28/98	485		M00001352B:F04	23105
3401	1/28/98	593 645	RTA00000196R.c.14.2 RTA00000177AF.k.9.1	M00001352B:F04 M00001352A:E02	16245
3402	1/28/98	576	RTA00000177AF.K.9.1 RTA00000196AF.c.7.1	M00001352A.E02	0
3403	1/28/98		RTA00000190AF.C.7.1 RTA00000189AR.m.9.1	M00001330B:C11	2917
3404	1/28/98	737 728	RTA00000189AR.III.9.1 RTA00000177AR.f.17.4	M00003880B.C08	8594
3405	1/28/98			M00001343C.B01	9544
3406	1/28/98	453	RTA00000199AF.i.20.1 RTA00000177AR.f.13.4	M00003881A.D09	10480
3407	1/28/98	440	RTA00000177AF.f.10.1	M00001345A:E01	6420
3408	1/28/98	680	RTA00000177AF.1.10.1 RTA00000196AF.b.7.1	M00001343A.E01 M00001344A:G07	7774
3409	1/28/98	573	RTA000001796AF.b.7.1 RTA00000177AF.b.21.4	M00001344A:G07 M00001341A:F12	4443
3410	1/28/98	402	RTA00000177AR.b.21.4 RTA00000177AR.b.8.5	M00001341A.112 M00001340B:A06	17062
3411	1/28/98	702	RTA00000177AR.b.3.3 RTA00000177AR.k.23.4	M00001340B.A00 M00001352D:D02	35550
3412	1/28/98	463		M00001352D:D02	35550
3412	1/28/98	168	RTA00000177AR.k.23.1	M00001332D.D02 M00001346B:B07	4119
3413	1/28/98	600	RTA00000177AF.g.4.1	M00001340B:B07 M00004233C:H09	7542
3414	1/28/98	280	RTA00000193AF.b.18.1	M00004233C:H09	19047
3415	1/28/98	748	RTA00000198AF.b.24.1	M00001571D:B11	19047
3415	1/28/98	623	RTA00000198R.b.24.1	M00001371D.B11 M00004257C:H06	22807
3416	1/28/98	249	RTA00000200R.o.03.2		
3416	1/28/98	178	RTA00000200F.o.03.1	M00004257C:H06	22807
3416	1/28/98	85	RTA00000200R.o.03.1	M00004257C:H06	22807
3417	1/28/98	282	RTA00000193AF.c.15.1	M00004248B:E08	3726
3418	1/28/98	307	RTA00000200F.n.05.2	M00004246C:A09	18989
3418	1/28/98	319	RTA00000200F.n.05.1	M00004246C:A09	18989
3419	1/28/98	319	RTA00000200F.n.05.1	M00004246C:A09	18989

SEQ ID NO:	Filing Date of Priority AppIn	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
3419	1/28/98	307	RTA00000200F.n.05.2	M00004246C:A09	10000
3420	1/28/98	85	RTA00000200R.o.03.1	M00004246C:A09 M00004257C:H06	18989
3420	1/28/98	249	RTA00000200R.o.03.1	M00004257C:H06	22807
3420	1/28/98	178	RTA00000200F.o.03.1	M00004257C:H06	22807
3421	1/28/98	307	RTA00000200F.n.05.2	M00004237C:H06 M00004246C:A09	22807
3421	1/28/98	319	RTA00000200F.n.05.1	M00004246C:A09	18989
3422	1/28/98	50	RTA000002001.ii.03.1 RTA00000201R.a.02.1		18989
3422	1/28/98	235	RTA00000201R.a.02.1	M00004295B:D02 M00004295B:D02	35362
3423	1/28/98	251	RTA00000201AL.a.02.1 RTA00000192AF.n.13.1	M00004293B:D02 M00004197D:H01	35362
3424	1/28/98	47	RTA00000192AF.m.13.1	M00004197D:H01	8210
3425	1/28/98	494	RTA00000192AI.M.12.1 RTA00000200AF.k.1.1	M00004191D:B11 M00004188C:A09	0
3425	1/28/98	194	RTA00000200ALk.11.1	M00004188C:A09	40049
3426	1/28/98	494	RTA00000200R.k.01.1	M00004188C:A09	40049
3426	1/28/98	194	RTA00000200ALk.111	M00004188C:A09	40049
3427	1/28/98	231	RTA00000200R.R.01.1 RTA00000192AF.I.13.2	M00004188C:A09 M00004185C:C03	40049
3428	1/28/98	382	RTA00000192AF.i.13.2 RTA00000200AF.j.6.1	M00004185C:C03 M00004176B:E08	11443
3429	1/28/98	307	RTA00000200A1.j.6.1 RTA00000200F.n.05.2	M00004170B.E08 M00004246C:A09	22902
3429	1/28/98	319	RTA00000200F.n.05.1	M00004246C:A09	18989 18989
3430	1/28/98	52	RTA00000201R.b.02.1	M00004240C.A09 M00004319D:G09	
3431	1/28/98	271	RTA00000201F.d.02.1	M00004375D:G09	22660 2599
3431	1/28/98	239	RTA00000201R.d.02.1	M00004375A:H01	2599 2599
3431	1/28/98	227	RTA00000201R.d.02.1	M00004375A:H01	2599 2599
3432	1/28/98	227	RTA00000201R.d.02.2	M00004375A:H01	2599 2599
3432	1/28/98	239	RTA00000201R.d.02.1	M00004375A:H01	2599 2599
3432	1/28/98	271	RTA00000201F.d.02.1	M00004375A:H01	2599 2599
3433	1/28/98	227	RTA00000201R.d.02.2	M00004375A:H01	2599
3433	1/28/98	271	RTA00000201F.d.02.1	M00004375A:H01	2599
3433	1/28/98	239	RTA00000201R.d.02.1	M00004375A:H01	2599
3434	1/28/98	271	RTA00000201F.d.02.1	M00004375A:H01	2599
3434	1/28/98	239	RTA00000201R.d.02.1	M00004375A:H01	2599
3434	1/28/98	227	RTA00000201R.d.02.2	M00004375A:H01	2599
3435	1/28/98	227	RTA00000201R.d.02.2	M00004375A:H01	2599
3435	1/28/98	271	RTA00000201F.d.02.1	M00004375A:H01	2599
3435	1/28/98	239	RTA00000201R.d.02.1	M00004375A:H01	2599
3436	1/28/98	178	RTA00000200F.o.03.1	M00004257C:H06	22807
3436	1/28/98	249	RTA00000200R.o.03.2	M00004257C:H06	22807
3436	1/28/98	85	RTA00000200R.o.03.1	M00004257C:H06	22807
3437	1/28/98	273	RTA00000201F.c.08.1	M00004353C:H07	0
3438	1/28/98	328	RTA00000200AF.g.09.1	M00004131B:H09	22785
3438	1/28/98	26	RTA00000200R.g.09.1	M00004131B:H09	22785
3439	2/24/98	571	RTA00000355R.e.14.1	M00004314B:G07	16837
3439	1/28/98	343	RTA00000201F.a.18.1	M00004314B:G07	16837
3440	1/28/98	343	RTA00000201F,a.18.1	M00004314B:G07	16837
3440	2/24/98	571	RTA00000355R.e.14.1	M00004314B:G07	16837
3441	1/28/98	164	RTA00000193AR.i.14.4	M00004307C:A06	9457
3442	1/28/98	50	RTA00000201R.a.02.1	M00004295B:D02	35362
3442	1/28/98	235	RTA00000201AF.a.02.1	M00004295B:D02	35362
3443	1/28/98	235	RTA00000201AF.a.02.1	M00004295B:D02	35362
3443	1/28/98	50	RTA00000201R.a.02.1	M00004295B:D02	35362
3444	1/28/98	50	RTA00000201R.a.02.1	M00004295B:D02	35362
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SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
3444	1/28/98	235	RTA00000201AF.a.02.1	M00004295B:D02	35362
3445	1/28/98	227	RTA00000201R.d.02.2	M00004375A:H01	2599
3445	1/28/98	271	RTA00000201F.d.02.1	M00004375Λ:H01	2599
3445	1/28/98	239	RTA00000201R.d.02.1	M00004375A:H01	2599
3446	1/28/98	13	RTA00000190AF.i.5.1	M00003919A:A10	0
3447	1/28/98	72	RTA00000200F.a.6.1	M00004029B:F11	36952
3448	1/28/98	101	RTA00000191AF.d.08.2	M00003997B:G07	970
3449	1/28/98	79	RTA00000199AF.p.4.1	M00003985C:F01	10282
3450	1/28/98	121	RTA00000199AF.o.16.1	M00003979A:F03	16721
3451	1/28/98	193	RTA00000199AF.n.3.1	M00003946D:C11	0
3452	1/28/98	165	RTA00000192AF.g.23.1	M00004157C:A09	6455
3453	1/28/98	381	RTA00000199AF.m.14.1	M00003938A:B04	10580
3454	1/28/98	123	RTA00000191AF.k.6.1	M00004078B:A11	5451
3455	1/28/98	102	RTA00000199R.j.08.1	M00003884D:G07	37844
3456	1/28/98	86	RTA00000189AF.1.22.1	M00003879C:G10	33333
3457	1/28/98	148	RTA00000199F.h.17.2	M00003871A:A05	36254
3458	1/28/98	143	RTA00000199R.h.09.1	M00003867C:H09	76020
3459	1/28/98	266	RTA00000199F.f.21.2	M00003847C:E09	13344
3460	2/24/98	153	RTA00000422F.g.22.1	M00001585B:A06	22561
3461	1/28/98	292	RTA00000199AF.m.18.1	M00003939C:F04	0
3462	1/28/98	275	RTA00000191AF.o.17.2	M00004102A:H02	5957
3462	1/28/98	274	RTA00000191AF.o.17.1	M00004102A:H02	5957
3463	1/28/98	239	RTA00000201R.d.02.1	M00004375A:H01	2599
3463	1/28/98	271	RTA00000201F.d.02.1	M00004375A:H01	2599
3463	1/28/98	227	RTA00000201R.d.02.2	M00004375A:H01	2599
3464	1/28/98	328	RTA00000200AF.g.09.1	M00004131B:H09	22785
3464	1/28/98	26	RTA00000200R.g.09.1	M00004131B:H09	22785
3465	1/28/98	214	RTA00000200AF.f.22.1	M00004121C:F06	16521
3466	1/28/98	160	RTA00000192AF.b.20.1	M00004118D:E08	0
3467	1/28/98	98	RTA00000200AF.f.14.1	M00004115D:C08	22051
3467	1/28/98	100	RTA00000200R.f.14.1	M00004115D:C08	22051
3468	1/28/98	98	RTA00000200AF.f.14.1	M00004115D:C08	22051
3468	1/28/98	100	RTA00000200R.f.14.1	M00004115D:C08	22051
3469	1/28/98	305	RTA00000200AF.b.15.1	M00004040D:F01	10627
3470	1/28/98	98	RTA00000200AF.f.14.1	M00004115D:C08	22051
3470	1/28/98	100	RTA00000200R.f.14.1	M00004115D:C08	22051
3471	1/28/98	29	RTA00000200AF.b.19.1	M00004113D:C00	22847
3472	1/28/98	274	RTA00000200AF.o.17.1	M00004042B:H02	5957
3472	1/28/98	275	RTA00000191AF.o.17.2	M00004102A:H02	5957
3472	1/28/98	273	RTA00000191AF.o.17.1	M00004102A:H02	5957
3473	1/28/98	275	RTA00000191AF.o.17.1	M00004102A:H02	5957
3473	1/28/98	275	RTA00000191AF.o.17.2	M00004102A:H02	5957 5957
3474 3474	1/28/98	273	RTA00000191AF.o.17.1	M00004102A:H02	5957
3474 3475	1/28/98	274	RTA00000191AR.o.17.1 RTA00000191AR.o.09.4	M00004102A:1102	0
			RTA00000191AR.0.09.4 RTA00000200AR.e.02.1	M00004090A:G02	36059
3476	1/28/98	40			
3477	1/28/98	175	RTA00000200F.i.5.1	M00004156B:A12	22892
3478	1/28/98	98	RTA00000200AF.f.14.1	M00004115D:C08	22051
3478	1/28/98	100	RTA00000200R.f.14.1	M00004115D:C08	22051
3479	1/28/98	643	RTA00000184AF.c.9.1	M00001546C:G10	16245
3480	1/28/98	615	RTA00000197R.p.20.1	M00001554B:B07	22795
			200		

SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
3480	1/28/98	559	RTA00000197AF.p.20.1	M00001554B:B07	22795
3481	1/28/98	660	RTA00000197AF.p.16.1	M00001554B:B07	6013
3482	1/28/98	521	RTA00000197AF.p.12.1	M00001552B:G05	0013
3483	1/28/98	403	RTA00000137AT.p.12.1	M00001552B:G05 M00001550D:H02	37 <b>8</b> 4
3484	1/28/98	517	RTA00000184AF.e.14.1	M00001530D:1102 M00001549C:D02	16347
3485	1/28/98	676	RTA00000197AR.m.14.1	M00001549C:D02 M00001531B:E09	14879
3486	1/28/98	596	RTA000001977Rdm:14.1	M00001531B:E09	6515
3487	1/28/98	559	RTA00000197AF.p.20.1	M00001540A:B11	22795
3487	1/28/98	615	RTA00000197R.p.20.1	M00001554B:B07	22795
3488	1/28/98	729	RTA00000137R.p.2011	M00001534B:B07	2628
3489	1/28/98	682	RTA00000104741.a.1771	M00001544A:E06	0
3490	1/28/98	723	RTA00000123/Lj.10.1	M00001544A:E00	3116
3491	1/28/98	509	RTA00000183AF.p.17.1	M00001543C:101	5158
3492	1/28/98	738	RTA00000183AF.o.8.1	M00001549A:1112	8927
3493	1/28/98	227	RTA00000201R.d.02.2	M00001340C:B10	2599
3493	1/28/98	271	RTA00000201F.d.02.1	M00004375A:H01	2599
3493	1/28/98	239	RTA00000201R.d.02.1	M00004375A:H01	2599
3494	1/28/98	502	RTA00000197AF.o.23.1	M00004575A:H01 M00001549A:A09	12682
3495	1/28/98	468	RTA00000198AF.a.18.1	M00001547/X:/YO	0
3496	1/28/98	210	RTA00000189AR.b.12.1	M00003829B:G03	17233
3496	1/28/98	422	RTA00000189AF.b.12.1	M00003829B:G03	17233
3497	1/28/98	748	RTA00000198AF.b.24.1	M00001571D:B11	19047
3497	1/28/98	623	RTA00000198R.b.24.1	M00001571D:B11	19047
3498	1/28/98	397	RTA00000198AF.b.22.1	M00001571B:E03	38956
3499	1/28/98	571	RTA00000198AF.b.14.1	M00001569C:B06	801
3500	1/28/98	492	RTA00000198AF.b.8.1	M00001567C:H12	22636
3500	1/28/98	23	RTA00000198R.b.08.1	M00001567C:H12	22636
3501	1/28/98	492	RTA00000198AF.b.8.1	M00001567C:H12	22636
3501	1/28/98	23	RTA00000198R.b.08.1	M00001567C:H12	22636
3502	1/28/98	559	RTA00000197AF.p.20.1	M00001554B:B07	22795
3502	1/28/98	615	RTA00000197R.p.20.1	M00001554B:B07	22795
3503	1/28/98	727	RTA00000184AF.n.12.2	M00001561D:C11	3727
3504	1/28/98	559	RTA00000197AF.p.20.1	M00001554B:B07	22795
3504	1/28/98	615	RTA00000197R.p.20.1	M00001554B:B07	22795
3505	1/28/98	641	RTA00000198F.a.10.1	M00001558A:E11	6695
3506	1/28/98	731	RTA00000184F.k.02.1	M00001557B:H10	5192
3507	1/28/98	597	RTA00000198F.a.4.1	M00001557A:F01	9635
3508	1/28/98	560	RTA00000184AF.i.23.3	M00001556A:F11	1577
3509	1/28/98	601	RTA00000184AF.i.10.2	· M00001555A:B01	3744
3510	1/28/98	700	RTA00000183AF.i.18.2	M00001529D:H02	40129
3511	1/28/98	437	RTA00000198R.a.23.1	M00001563B:D11	10700
3512	1/28/98	591	RTA00000197AF.h.1.1	M00001470A:H01	13075
3512	1/28/98	110	RTA00000197R.h.01.1	M00001470A:H01	13075
3513	1/28/98	259	RTA00000197AF.j.4.1	M00001492D:A11	17209
3513	1/28/98	386	RTA00000197AR.j.04.1	M00001492D:A11	17209
3514	1/28/98	386	RTA00000197AR.j.04.1	M00001492D:A11	17209
3514	1/28/98	259	RTA00000197AF.j.4.1	M00001492D:A11	17209
3515	1/28/98	644	RTA00000197F.i.12.1	M00001489B:A06	3605
3516	1/28/98	633	RTA00000197F.i.8.1	M00001488A:E01	6292
3517	1/28/98	546	RTA00000197F.i.6.1	M00001487C:D06	12149

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Namc	Clone Name	Cluster ID
	Appln	Appln	•		
3518	1/28/98	650	RTA00000183AR.n.17.1	M00001539B:H06	9800
3519	1/28/98	513	RTA00000197AF.h.14.1	M00001477B:F04	7045
3520	1/28/98	519	RTA00000183AF.a.24.2	M00001499B:A11	10539
3521	1/28/98	110	RTA00000197R.h.01.1	M00001470A:H01	13075
3521	1/28/98	591	RTA00000197AF.h.1.1	M00001470A:H01	13075
3522	1/28/98	446	RTA00000182AF.a.23.3	M00001463A:F06	9755
3523	1/28/98	739	RTA00000181AF.p.12.3	M00001460C:H02	22204
3524	1/28/98	635	RTA00000181AF.p.7.3	M00001460A:E01	38773
3525	1/28/98	720	RTA00000197AF.f.14.1	M00001459B:C09	3732
3526	1/28/98	623	RTA00000198R.b.24.1	M00001571D:B11	19047
3526	1/28/98	748	RTA00000198AF.b.24.1	M00001571D:B11	19047
3527	1/28/98	419	RTA00000182AF.j.20.1	M00001483B:D03	4769
3528	1/28/98	632	RTA00000183AR.g.03.1	M00001512D:G09	3956
3528	1/28/98	630	RTA00000183AR.g.03.2	M00001512D:G09	3956
3529	1/28/98	695	RTA00000197F.m.5.1	M00001528C:H04	10872
3530	1/28/98	479	RTA00000197R.1.22.1	M00001528A:C11	6962
3530	1/28/98	665	RTA00000197AF.I.22.1	M00001528A:C11	6962
3531	1/28/98	479	RTA00000197R.1.22.1	M00001528A:C11	6962
3531	1/28/98	665	RTA00000197AF.I.22.1	M00001528A:C11	6962
3532	1/28/98	479	RTA00000197R.1.22.1	M00001528A:C11	6962
3532	1/28/98	665	RTA00000197AF.I.22.1	M00001528A:C11	6962
3533	1/28/98	479	RTA00000197R.I.22.1	M00001528A:C11	6962
3533	1/28/98	665	RTA00000197AF.1.22.1	M00001528A:C11	6962
3534	1/28/98	550	RTA00000183AF.g.14.1	M00001513D:A03	0
3535	1/28/98	404	RTA00000195AF.b.6.1	M00001496C:G10	39490
3536	1/28/98	630	RTA00000183AR.g.03.2	M00001512D:G09	3956
3536	1/28/98	632	RTA00000183AR.g.03.1	M00001512D:G09	3956
3537	1/28/98	570	RTA00000183AF.a.19.2	M00001499A:A05	3788
3538	1/28/98	630	RTA00000183AR.g.03.2	M00001512D:G09	3956
3538	1/28/98	632	RTA00000183AR.g.03.1	M00001512D:G09	3956
3539	1/28/98	603	RTA00000183AR.d.11.3	M00001504D:G06	6420
3540	1/28/98	715	RTA00000197AR.k.11.1	M00001500D:E10	53758
3541	1/28/98	503	RTA00000197AF.k.9.1	M00001500C:C08	3138
3542	1/28/98	719	RTA00000183AF.b.12.1	M00001500A:B02	0
3543	1/28/98	271	RTA00000201F.d.02.1	M00004375A:H01	2599
3543	1/28/98	239	RTA00000201R.d.02.1	M00004375A:H01	2599
3543	1/28/98	227	RTA00000201R.d.02.2	M00004375A:H01	2599
3544	1/28/98	630	RTA00000183AR.g.03.2	M00001512D:G09	3956
3544	1/28/98	632	RTA00000183AR.g.03.1	M00001512D:G09	3956
3545	3/24/98	15	RTA00000425F.j.14.1	M00001639D:C12	73397
3546	3/24/98	111	RTA00000425F.d.08.1	M00001631A:F06	74350
3547	3/24/98	152	RTA00000425F.d.07.1	M00001631A:F12	43197
3548	3/24/98	147	RTA00000425F.d.21.1	M00001631B:H04	78920
3549	3/24/98	77	RTA00000425F.i.17.1	M00001633A:F11 M00001633A:G10	43213 42255
3550	3/24/98	418	RTA00000425F.i.18.1		26760
3551	3/24/98	197	RTA00000425F.j.20.1	M00001633B:A12 M00001633B:E03	73882
3552	3/24/98	143	RTA00000425F.j.22.1	M00001633B:E03	73882 74048
3553	3/24/98	283	RTA00000425F.k.20.1	M00001633C:A08	78123
3554	3/24/98	139	RTA00000425F.k.22.1 RTA00000418F.n.24.1	M00001653C:E12	73153
3555	2/24/98	870	K1 A0000416F.II.24.1	1V1000010J7D.C07	ددادا

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	$\Lambda$ ppln			
3556	3/24/98	403	RTA00000425F.n.17.1	M00001636A:H12	78304
3557	2/24/98	1109	RTA00000422F.f.22.1	M00001584A:G03	38703
3558	3/24/98	150	RTA00000424F.d.04.1	M00001478A:F12	76505
3558	3/24/98	149	RTA00000424F.d.04.3	M00001478A:F12	76505
3559	3/24/98	358	RTA00000425F.n.19.1	M00001638B:C08	78324
3560	3/24/98	165	RTA00000425F.e.21.1	M00001629D:D10	77203
3561	3/24/98	443	RTA00000425F.k.16.1	M00001640A:F05	75282
3562	3/24/98	252	RTA00000425F.m.03.1	M00001642D:G08	76045
3563	3/24/98	116	RTA00000425F.n.05.1	M00001647D:G07	73965
3564	3/24/98	425	RTA00000522F.i.07.2	M00001649A:E10	78377
3565 ·	3/24/98	445	RTA00000522F.j.08.2	M00001650D:D10	76613
3566	3/24/98	371	RTA00000522F.j.09.2	M00001650D:F11	78522
3567	3/24/98	97	RTA00000522F.j.14.2	M00001651C:D11	73123
3568	3/24/98	69	RTA00000522F.j.15.2	M00001651C:G12	76535
3569	3/24/98	373	RTA00000522F.j.19.2	M00001652B:D06	76224
3570	3/24/98	93	RTA00000522F.k.14.1	M00001652D:G02	74280
3571	3/24/98	50	RTA00000522F.k.15.1	M00001652D:G06	76866
3572	3/24/98	141	RTA00000522F.k.19.1	M00001653A:A05	32625
3573	3/24/98	409	RTA00000425F.I.10.1	M00001638A:C08	26893
3574	2/24/98	443	RTA00000414F.f.15.1	M00005260A:A12	0
3575	2/24/98	886	RTA00000420F.m.15.1	M00005235B:F10	0
3576	2/24/98	260	RTA00000414F.e.08.1	M00005236A:E04	0
3577	2/24/98	734	RTA00000414F.e.09.1	M00005236A:G10	0
3578	2/24/98	1077	RTA00000414F.e.11.1	M00005236B:A12	0
3579	2/24/98	970	RTA00000414F.e.15.1	M00005236B:G03	0
3580	2/24/98	271	RTA00000414F.e.16.1	M00005236B:H10	0
3581	2/24/98	58	RTA00000420F.m.18.1	M00005254D:A10	0
3582	2/24/98	289	RTA00000420F.n.08.1	M00005257A:H11	0
3583	2/24/98	1033	RTA00000414F.e.19.1	M00005257C:E05	0
3584	2/24/98	793	RTA00000414F.e.21.1	M00005257C:G01	0
3585	2/24/98	36	RTA00000414F.e.22.1	M00005257D:A06	0
3586	2/24/98	852	RTA00000414F.f.03.1	M00005257D:G07	0
3587	3/24/98	341	RTA00000425F.d.06.1	M00001631A:D03	77 <b>6</b> 60
3588	2/24/98	961	RTA00000420F.n.21.2	M00005259B:D12	0
3589	3/24/98	441	RTA00000528F.g.22.2	M00001630C:F09	920
3590	2/24/98	940	RTA00000414F.f.17.1	M00005260A:F04	0
3591	2/24/98	160	RTA00000414F.f.19.1	M00005260B:E11	0
3592	3/24/98	140	RTA00000424F.m.14.1	M00001612D:D12	77491
3593	3/24/98	34	RTA00000424F.m.15.1	M00001612D:F06	73759
3594	3/24/98	212	RTA00000424F.n.06.1	M00001613A:D02	74737
3595	3/24/98	308	RTA00000424F.k.23.1	M00001614A:B10	31061
3596	3/24/98	372	RTA00000424F.m.24.1	M00001614C:G07	77045
3597	3/24/98	396	RTA00000528F.g.05.2	M00001615C:E07	3770
3598	3/24/98	296	RTA00000425F.e.02.1	M00001625C:F10	76143
3599	3/24/98	99	RTA00000425F.c.20.1	M00001626D:A02	73581
3600	3/24/98	442	RTA00000425F.d.14.1	M00001629A:H09	13417
3601	3/24/98	357	RTA00000425F.e.19.1	M00001629D:B10	73409
3602	2/24/98	210	RTA00000419F.p.24.1	M00004039B:E12	63477
3603	2/24/98	501	RTA00000414F.f.05.1	M00005257D:H11	0.5477
3604	2/24/98	561	RTA00000420F.e.10.1	M00004108D:G04	65899
					55677

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appin	Appln			
3605	2/24/98	758	RTA00000407F.a.01.1	M00004039A:H11	12501
3606	2/24/98	688	RTA00000413F.d.23.1	M00004090B:H06	66030
3607	2/24/98	124	RTA00000420F.d.05.1	M00004092B:E05	64432
3608	2/24/98	329	RTA00000413F.e.16.1	M00004093C:C02	63836
3609	2/24/98	359	RTA00000420F.d.12.1	M00004096D:H03	64095
3610	2/24/98	429	RTA00000422F.c.17.1	M00004099D:F01	1360
3611	2/24/98	630	RTA00000413F.f.19.1	M00004100B:C07	65189
3612	2/24/98	439	RTA00000413F.g.23.1	M00004103B:E09	40700
3613	2/24/98	3	RTA00000420F.d.18.1	M00004105C:B05	63074
3614	2/24/98	1064	RTA00000420F.d.19.1	M00004105C:C08	43146
3615	2/24/98	671	RTA00000413F.h.12.1	M00004107A:A12	66929
3616	2/24/98	507	RTA00000420F.e.02.1	M00004107B:D07	40259
3617	2/24/98	319	RTA00000420F.b.21.1	M00004088D:B10	65057
3618	2/24/98	931	RTA00000420F.e.09.1	M00004108D:E07	66325
3619	2/24/98	840	RTA00000420F.b.20.1	M00004088D:B05	0
3620	2/24/98	545	RTA00000420F.e.15.1	M00004110A:A10	20190
3621	2/24/98	981	RTA00000420F.e.20.1	M00004110B:A07	64762
3622	3/24/98	370	RTA00000424F.d.19.3	M00001448B:A07	73180
3623	3/24/98	370	RTA00000424F.d.19.3	M00001448B:A07	73180
3624	3/24/98	189	RTA00000424F.d.22.3	M00001448B:G07	76189
3625	3/24/98	189	RTA00000424F.d.22.3	M00001448B:G07	76189
3626	3/24/98	92	RTA00000424F.a.24.4	M00001448D:E11	73951
3627	3/24/98	92	RTA00000424F.a.24.4	M00001448D:E11	73951
3628	3/24/98	279	RTA00000528F.b.03.1	M00001455A:D10	2078
3629	3/24/98	279	RTA00000528F.b.03.1	M00001455A:D10	2078
3630	3/24/98	480	RTA00000424F.d.17.3	M00001455A:E11	73958
3631	3/24/98	480	RTA00000424F.d.17.3	M00001455A:E11	73958
3632	2/24/98	583	RTA00000406F.i.17.1	M00003904B:C03	37902
3633	2/24/98	590	RTA00000407F.b.22.1	M00004108B:B02	37487
3634	2/24/98	1075	RTA00000413F.b.17.1	M00004078A:F07	21704
3635	2/24/98	544	RTA00000420F.I.21.2	M00005232A:H12	0
3636	1/28/98	684	RTA00000200AR.b.11.1	M00004040A:G12	12043
3636	2/24/98	1166	RTA00000347F.h.01.1	M00004040A:G12	12043
3637	1/28/98	684	RTA00000200AR.b.11.1	M00004040A:G12	12043
3637	2/24/98	1166	RTA00000347F.h.01.1	M00004040A:G12	12043
3638	2/24/98	1087	RTA00000401F.o.13.1	M00004040C:A01	3220
3639	2/24/98	114	RTA00000341F.m.21.1	M00004051D:E01 M00004072D:F09	0
3640	2/24/98 2/24/98	811	RTA00000413F.a.12.1	M00004072D.F09 M00004073A:D10	63403
3641 3642	1/28/98	714 387	RTA00000420F.a.08.1 RTA00000191AF.j.14.1	M00004073A:D10	19473 1002
3642	2/24/98	632	RTA00000191AF.j.14.1	M00004073A:H12	1002
3643	1/28/98	387	RTA00000191AF.j.14.1	M00004073A:H12	1002
3643	2/24/98	632	RTA00000191AF.j.14.1	M00004073A:H12	1002
3644	2/24/98	964	RTA00000191AL.J.14.1	M00004075B:G09	11219
3645	2/24/98	355	RTA00000420F.a.19.1	M00004075B:G07	34192
3646	2/24/98	745	RTA000004201.a.19.1 RTA00000413F.b.04.1	M00004076A:D12	66427
3647	2/24/98	64	RTA00000413F.d.18.1	M00004070B:H07	65305
3648	2/24/98	698	RTA00000413F.b.16.1	M00004070B:B04	65126
3649	2/24/98	190	RTA00000419F.p.23.1	M00004070A:L03	64748
3650	2/24/98	903	RTA000004797.p.23.1	M00004039B:R03	66241
J J J J	, , 0	. 05	11.7100000 1207 14.2111		00m11

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appin	Appln			
3651	2/24/98	588	RTA00000420F.a.23.1	M00004078B:F12	43150
3652	2/24/98	1185	RTA00000413F.b.20.1	M00004078B:F12	42158
3653	2/24/98	619	RTA00000420F.b.04.1	M00004077B:G08	66063 63820
3654	2/24/98	988	RTA00000407F.a.22.1	M00004081A:C01	15570
3655	2/24/98	705	RTA00000407F.a.23.1	M00004081C:A10	23489
3656	2/24/98	282	RTA00000407F.a.24.1	M00004083A:E08	37560
3657	2/24/98	835	RTA00000413F.c.10.1	M00004083B:C01	65600
3658	2/24/98	598	RTA00000420F.b.18.1	M00004086D:G08	66136
3659	2/24/98	335	RTA00000413F.d.02.1	M00004087B:A12	66172
3660	2/24/98	504	RTA00000413F.d.05.1	M00004087C:A01	64788
3661	2/24/98	76	RTA00000413F.d.16.1	M00004088C:F01	63331
3662	2/24/98	726	RTA00000420F.b.19.1	M00004088D:A11	36873
3663	2/24/98	521	RTA00000413F.b.14.1	M00004078A:C11	66591
3664	2/24/98	255	RTA00000419F.o.16.1	M00003989C:G05	62867
3665	2/24/98	665	RTA00000419F.p.20.1	M00004039A:C03	9458
3666	2/24/98	1234	RTA00000352R.c.20.1	M00003982A:B12	7339
3667	2/24/98	247	RTA00000412F.j.17.1	M00003982C:G04	64071
3668 3669	2/24/98	1145	RTA00000423F.k.21.2	M00003984D:B08	37499
3670	2/24/98	993	RTA00000406F.o.05.1	M00003985B:G04	37894
3670 3671	2/24/98 2/24/98	328	RTA00000423F.k.19.2	M00003985D:E10	17615
3672	2/24/98	254	RTA00000341F.1.15.1	M00003986B:A08	5294
3673	2/24/98	948 661	RTA00000419F.o.06.1	M00003986C:D09	64643
3674	2/24/98	117	RTA00000341F.I.16.1	M00003986D:C08	8479
3675	2/24/98	1210	RTA00000341F.m.13.1	M00003987B:E12	26502
3676	2/24/98	460	RTA00000419F.o.09.1	M00003987B:F08	66396
3677	2/24/98	486	RTA00000341F.j.12.1 RTA00000346F.l.13.1	M00003987C:G03	12195
3678	2/24/98	723	RTA00000346F.I.13.1 RTA00000419F.o.15.1	M00003980B:C11	7542
3679	2/24/98	897	RTA00000419F.0.13.1 RTA00000419F.n.24.1	M00003989C:D03	32487
3680	2/24/98	92	RTA00000419F.II.24.1 RTA00000412F.I.04.1	M00003980A:F04	65995
3681	2/24/98	1014	RTA00000412F.I.14.1	M00003989D:F12 M00004029B:F01	66372
3682	2/24/98	348	RTA00000412F.I.19.1		62792
3683	2/24/98	284	RTA00000412F.I.21.1	M00004029C:C05 M00004029C:G10	65825
3684	2/24/98	188	RTA00000406F.p.04.1	M00004029C:G10 M00004030D:F11	65183
3685	2/24/98	812	RTA00000412F.o.05.1	M00004030D.F11	37458
3686	2/24/98	911	RTA00000406F.p.13.1	M00004034A:A01	63575 8584
3687	2/24/98	230	RTA00000423F.k.01.1	M00004034D:E09	40426
3688	2/24/98	1076	RTA00000423F.k.09.1	M00004035B:H09	26630
3689	2/24/98	941	RTA00000419F.p.08.1	M00004036D:B04	65560
3690	2/24/98	1186	RTA00000419F.p.10.1	M00004036D:B09	41448
3691	2/24/98	42	RTA00000423F.k.17.2	M00004038A:F02	37512
3692	2/24/98	934	RTA00000414F.e.01.1	M00005233D:H07	0
3693	2/24/98	37	RTA00000406F.o.15.1	M00003988D:A08	37482
3694	2/24/98	1016	RTA00000406F.n.12.1	M00003960A:G07	37517
3695	1/28/98	584	RTA00000190AR.c.03.1	M00003904C:A08	0
3695	2/24/98	1069	RTA00000346F.k.05.1	M00003904C:A08	0
3696	1/28/98	584	RTA00000190AR.c.03.1	M00003904C:A08	Ö
3696	2/24/98	1069	RTA00000346F.k.05.1	M00003904C:A08	Ō
3697 3698	2/24/98	489	RTA00000406F.j.19.1	M00003906A:F12	1685
2070	2/24/98	461	RTA00000412F.d.16.1	M00003906B:H06	26829
			214		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
2400	Appln	Appln	DT 4 00000410F 04 1	M00003007C C05	74267
3699	2/24/98	558	RTA00000419F.m.04.1	M00003906C:C05	74367
3700	2/24/98	120	RTA00000401F.m.02.1	M00003907A:F01	1573
3701	2/24/98	628	RTA00000412F.d.19.1	M00003907B:C03	75743
3702	2/24/98	792	RTA00000406F.k.11.1	M00003907B:D05	38715
3703	2/24/98	292	RTA00000423F.i.18.1	M00003918A:D08	14996
3704	2/24/98	1192	RTA00000406F.m.17.1	M00003918A:F09	0
3705	2/24/98	9	RTA00000406F.n.02.1	M00003918C:H10	15051
3706	2/24/98	629	RTA00000352R.c.04.1	M00003924A:D08	71976
3707	2/24/98	438	RTA00000195R.d.09.1	M00003981C:B04	8537
3708	2/24/98	433	RTA00000419F.n.02.1	M00003958B:H08	65963
3709	2/24/98	147	RTA00000422F.c.02.1	M00004118B:A03	2902
3710	2/24/98	649	RTA00000412F.g.03.1	M00003971B:A10	64740
3711	2/24/98	1141	RTA00000347F.f.08.1	M00003972D:H02	5948
3712	2/24/98	252	RTA00000412F.g.24.1	M00003973C:C03	28741
3713	2/24/98	732	RTA00000412F.h.11.1	M00003974B:B11	63175
3714	2/24/98	181	RTA00000412F.h.21.1	M00003974D:F02	64348
3715	2/24/98	345	RTA00000412F.h.23.2	M00003974D:H04	65118
3716	2/24/98	148	RTA00000419F.n.04.1	M00003975C:F07	13102
3717	2/24/98	311	RTA00000419F.n.09.1	M00003977C:A06	66070
3718	2/24/98	1044	RTA00000419F.n.11.1	M00003977C:B03	66477
3719	2/24/98	652	RTA00000419F.n.12.1	M00003977D:A03	66086
3720	2/24/98	452	RTA00000419F.n.13.1	M00003977D:A06	66026
3721	2/24/98	796	RTA00000419F.n.15.1	M00003977D:D04	63484
3722	2/24/98	1249	RTA00000419F.n.17.1	M00003978D:G04	63186
3723	2/24/98	860	RTA00000419F.m.23.1	M00003958B:E11	64263
3724	2/24/98	713	RTA00000414F.b.10.1	M00005212D:D09	0
3725	2/24/98	1002	RTA00000419F.p.18.1	M00004038D:G06	63002
3726	2/24/98	1048	RTA00000413F.o.07.2	M00005100A:C01	0
3727	2/24/98	508	RTA00000420F.i.20.1	M00005101C:E12	0
3728	2/24/98	1001	RTA00000413F.p.07.2	M00005102C:D03	0
3729	2/24/98	88	RTA00000420F.i.24.1	M00005134B:E08	0
3730	2/24/98	93	RTA00000413F.p.24.1	M00005139A:H03	0
3731	2/24/98	142	RTA00000420F.j.19.1	M00005140C:B10	0
3732	2/24/98	833	RTA00000420F.j.20.1	M00005140D:C06	0
3733	2/24/98	316	RTA00000414F.a.02.1	M00005178D:H04	0
3734	2/24/98	1100	RTA00000414F.a.12.1	M00005210A:E06	0
3735	2/24/98	1175	RTA00000414F.b.04.1	M00005212B:E01	0
3736	2/24/98	1236	RTA00000414F.b.06.1	M00005212C:C03	0
3737	2/24/98	747	RTA00000413F.n.24.1	M00004960C:E10	0
3738	2/24/98	207	RTA00000414F.b.08.1	M00005212C:H02	0
3739	2/24/98	935	RTA00000420F.i.07.1	M00004960A:B08	0
3740	2/24/98	741	RTA00000414F.b.12.1	M00005212D:H01	0
3741	2/24/98	865	RTA00000414F.c.03.1	M00005216A:D09	0
3742	2/24/98	862	RTA00000414F.c.07.1	M00005216A:H01	0
3743	2/24/98	565	RTA00000420F.k.17.2	M00005217B:A06	0
3744	2/24/98	1226	RTA00000414F.c.12.1	M00005218A:F09	0
3745	2/24/98	512	RTA00000414F.c.16.1	M00005228A:B03	0
3746	2/24/98	817	RTA00000420F.1.08.2	M00005228C:C05	0
3747	2/24/98	573	RTA00000414F.c.23.1	M00005229B:G12	0
3748	2/24/98	1237	RTA00000414F.c.24.1	M00005229B:H04	0

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appin			
3749	2/24/98	727	RTA00000414F.d.02.1	M00005229B:H06	0
3750	2/24/98	566	RTA00000414F.d.05.1	M00005229D:H03	0
3751	2/24/98	307	RTA00000420F.I.12.2	M00005230B:H09	0
3752	3/24/98	149	RTA00000424F.d.04.3	M00001478A:F12	76505
3752	3/24/98	150	RTA00000424F.d.04.1	M00001478A:F12	76505
3753	2/24/98	946	RTA00000414F.b.07.1	M00005212C:D02	0
3754	1/28/98	343	RTA00000201F.a.18.1	M00004314B:G07	16837
3754	2/24/98	571	RTA00000355R.e.14.1	M00004314B:G07	16837
3755	2/24/98	481	RTA00000413F.i.23.1	M00004118B:F01	63073
3756	2/24/98	1039	RTA00000407F.c.08.1	M00004118D:B05	37549
3757	2/24/98	824	RTA00000420F.f.07.1	M00004119A:C09	66312
3758	2/24/98	813	RTA00000346F.o.06.1	M00004136D:B02	4937
3759	2/24/98	<b>10</b> 70	RTA00000346F.n.22.1	M00004137A:D06	0
3760	2/24/98	283	RTA00000346F.n.06.1	M00004139C:A12	12439
3761	2/24/98	368	RTA00000346F.o.08.1	M00004149C:B02	0
3762	2/24/98	704	RTA00000355R.a.12.1	M00004159C:F09	36756
3762	1/28/98	685	RTA00000200F.i.9.1	M00004159C:F09	36756
3763	1/28/98	685	RTA00000200F.i.9.1	M00004159C:F09	36756
3763	2/24/98	704	RTA00000355R.a.12.1	M00004159C:F09	36756
3764	2/24/98	1254	RTA00000341F.p.11.1	M00004159C:G12	0
3765	2/24/98	1188	RTA00000341F.o.18.1	M00004169D:B11	37189
3766	2/24/98	40	RTA00000352R.I.06.1	M00004187D:H06	40343
3767	2/24/98	456	RTA00000413F.o.06.1	M00005100A:B02	0
3768	2/24/98	882	RTA00000355R.c.03.1	M00004244C:G07	3986
3769	2/24/98	503	RTA00000420F.m.08.1	M00005233B:D04	0
3770	2/24/98	571	RTA00000355R.e.14.1	M00004314B:G07	16837
3770	1/28/98	343	RTA00000201F.a.18.1	M00004314B:G07	16837
3771	2/24/98	91	RTA00000355R.e.15.1	M00004316A:G09	22639
3771	1/28/98	410	RTA00000201F.a.20.1	M00004316A:G09	22639
3772	2/24/98	91	RTA00000355R.e.15.1	M00004316A:G09	22639
3772	1/28/98	410	RTA00000201F.a.20.1	M00004316A:G09	22639
3773	2/24/98	1135	RTA00000346F.o.16.1	M00004358D:C02	176
3774	2/24/98	220	RTA00000413F.k.02.1	M00004690A:G08	0
3775	2/24/98	487	RTA00000420F.g.05.1	M00004891B:D01	0
3776	2/24/98	102	RTA00000420F.g.06.1	M00004891C:D04	0
3777	2/24/98	1238	RTA00000420F.g.09.1	M00004895B:E12	0
3778 3779	2/24/98	18	RTA00000420F.g.12.1	M00004895B:G04	0
3780	2/24/98	1196	RTA00000413F.I.18.1	M00004895D:G07	0
3781	2/24/98	579	RTA00000413F.m.16.1	M00004898C:F03	0
3782	2/24/98	143	RTA00000420F.h.13.1	M00004899D:G06	0
3783	2/24/98	909	RTA00000420F.i.04.1	M00004959D:H12	0
3784	2/24/98	709	RTA00000352R.p.09.1	M00004228C:H03	16915
3785	3/24/98 3/24/98	221	RTA00000427F.j.22.1	M00004097D:B05	66367
3786		188	RTA00000525F.c.15.1	M00004040A:A07	7692
3787	3/24/98 3/24/98	401	RTA00000525F.c.16.1	M00004040A:B04	38209
3788	3/24/98	53	RTA00000525F.c.17.1	M00004040A:C08	38160
3789	3/24/98	325	RTA00000525F.c.18.1	M00004040B:C05	24208
3790	3/24/98	159 209	RTA00000525F.c.19.1	M00004040B:F07	38159
3791	3/24/98	123	RTA00000427F.g.16.1	M00004069A:E12	63011
2771	3127170	143	RTA00000427F.g.05.1	M00004069C:C08	63138

Appln   Appln   G	SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
3794 3/24/98 235 RTA00000427F.B.02.1 M00004085B:G01 63652 3794 3/24/98 333 RTA00000427F.k.21.1 M00004097C:B05 64611 3795 3/24/98 130 RTA00000427F.k.12.1 M00004090C:F12 62880 3796 3/24/98 243 RTA00000427F.h.12.1 M00004090C:D08 36894 3797 3/24/98 243 RTA00000427F.i.11.1 M00004097C:H08 26635 3799 3/24/98 456 RTA00000427F.i.11.1 M00004097C:H08 26635 3799 3/24/98 456 RTA00000427F.i.10.1 M00004038B:D01 65370 3800 3/24/98 291 RTA00000523F.o.20.1 M0000517D:F102 0 3801 3/24/98 291 RTA00000523F.p.06.1 M00005177C:G04 0 3803 3/24/98 178 RTA00000523F.p.06.1 M00005177D:F09 0 3803 3/24/98 463 RTA00000523F.p.16.1 M00005177D:B03 0 3805 3/24/98 463 RTA00000523F.p.16.1 M00005179D:B03 0 3806 3/24/98 468 RTA00000524F.a.18.1 M0000521D:C09 0 3806 3/24/98 114 RTA0000523F.p.16.1 M0000521D:C09 0 3808 3/24/98 18 2P RTA00000524F.a.18.1 M0000521D:C09 0 3808 3/24/98 468 RTA00000524F.a.18.1 M0000521D:C09 0 3808 3/24/98 468 RTA00000524F.a.18.1 M0000521D:C09 0 3808 3/24/98 468 RTA00000524F.a.18.1 M0000521D:C09 0 3808 3/24/98 18 2P RTA00000524F.a.18.1 M0000521D:C09 0 3808 3/24/98 48 RTA00000524F.b.03.1 M0000521D:C09 0 3810 3/24/98 48 RTA00000524F.b.10.1 M0000521D:C09 0 3811 3/24/98 48 RTA00000524F.b.10.1 M0000521D:C09 0 3813 3/24/98 48 RTA00000524F.b.10.1 M0000521D:C09 0 3813 3/24/98 48 RTA00000527F.p.03.1 M0000521B:A00 0 3814 3/24/98 48 RTA00000527F.b.01.1 M0000521B:A00 0 3814 3/24/98 48 RTA00000527F.b.01.1 M0000398B:C10 11332 3815 3/24/98 48 RTA00000527F.b.01.1 M0000398B:C10 11332 3816 3/24/98 49 RTA00000527F.n.02.1 M0000398B:C10 11332 3817 3/24/98 49 RTA00000527F.n.02.1 M0000398B:C10 1232 3824 3/24/98 49 RTA00000527F.n.02.1 M0000398B:C10 1232 3824/98 56 RTA00000527F.n.02.1 M0000398B:C10 1232 3824/98 79 RTA00000527F.n.02.1 M0000398B:C10 1232 3824/98 89 RTA00000527F.n.02.1 M0000398B:C10 1232 3824/98 89 RTA00000527F.n.02.1 M0000398B:D10 66572 3827 3/24/98 49 RTA00000527F.n.02.1 M0000398B:D10 66572 3823 3/24/98 49 RTA00000527F.n.02.1 M0000398B:D10 66572 3824/98 811 RTA00000527F.n.02.1 M00004029E:G10 1292 3830 3/24/98 811 RTA00000527F.n.03.1 M00		Appln	Appln			
3794 3/24/98 335 RTA00000427F.g.19.1 M00004087A:B05 64611 3795 3/24/98 130 RTA00000427F.k.21.1 M00004090D:F12 62880 3796 3/24/98 130 RTA00000427F.h.12.1 M00004090D:F12 73533 3798 3/24/98 243 RTA00000427F.h.12.1 M00004097C:H08 26635 3799 3/24/98 27 RTA00000427F.a.10.1 M00004097C:H08 26635 3800 3/24/98 7 RTA00000427F.a.10.1 M00004038B:D01 65370 3801 3/24/98 7 RTA00000523F.o.20.1 M00005177B:H02 0 3801 3/24/98 119 RTA00000523F.p.06.1 M00005177D:F09 0 3803 3/24/98 119 RTA00000523F.p.06.1 M00005179B:H02 0 3804 3/24/98 178 RTA00000523F.p.16.1 M00005179B:H02 0 3805 3/24/98 199 RTA00000523F.a.12.1 M00005179B:H02 0 3806 3/24/98 463 RTA00000523F.a.18.1 M00005179B:H02 0 3807 3/24/98 468 RTA00000524F.a.18.1 M00005179D:B03 0 3808 3/24/98 468 RTA00000524F.a.18.1 M000052110E:C09 0 3806 3/24/98 468 RTA00000524F.a.18.1 M000052110E:C09 0 3807 3/24/98 36 RTA00000524F.a.18.1 M000052110E:D0 0 3808 3/24/98 36 RTA00000524F.a.16.1 M000052110E:D0 0 3809 3/24/98 36 RTA00000524F.a.16.1 M000052110E:D0 0 3810 3/24/98 36 RTA00000524F.a.16.1 M000052110E:D0 0 3811 3/24/98 384 RTA00000524F.b.03.1 M000052110E:D0 0 3812 3/24/98 384 RTA00000524F.b.10.1 M000052110E:D0 0 3813 3/24/98 384 RTA00000524F.b.10.1 M00005210E:C03 0 3813 3/24/98 384 RTA00000527F.p.03.1 M000005210E:D0 0 3813 3/24/98 384 RTA00000527F.b.03.1 M000005210E:D0 0 3814 3/24/98 384 RTA00000527F.b.03.1 M000005210E:D0 0 3815 3/24/98 384 RTA00000527F.b.03.1 M00003983A:D0 3063 3814 3/24/98 48 RTA00000527F.b.03.1 M00003983B:D1 36916 3813 3/24/98 49 RTA00000527F.b.03.1 M00003988B:D1 36916 3814 3/24/98 49 RTA00000527F.b.03.1 M0000398B:C1 11332 3824/98 40 RTA00000527F.b.03.1 M0000398B:C1 1292 3823 3/24/98 49 RTA00000527F.b.03.1 M0000398B:C1 1292 3824/98 49 RTA00000527F.b.03.1 M0000398B:C1 1292 3824/98 50 RTA00000527F.b.03.1 M0000398B:D1 36855 3824/98 51 RTA00000527F.b.03.1 M00004039B:D1 66572 383	3792	3/24/98	62	RTA00000427F.j.19.1	M00004077A:G12	
3795         3/24/98         333         RTA00000427F.k.21.1         M0000409C:D08         36894           3796         3/24/98         243         RTA00000427F.h.12.1         M00001496C:D08         36894           3797         3/24/98         227         RTA00000427F.i.11.1         M00004097C:H08         26335           3799         3/24/98         456         RTA00000523F.o.20.1         M00005177B:H02         0           3801         3/24/98         291         RTA00000523F.o.20.1         M00005177B:H02         0           3802         3/24/98         119         RTA00000523F.p.06.1         M00005177B:H02         0           3803         3/24/98         119         RTA00000523F.p.16.1         M00005177B:H02         0           3804         3/24/98         163         RTA00000524F.a.12.1         M00005179B:H02         0           3805         3/24/98         463         RTA00000524F.a.18.1         M00005179D:B03         0           3807         3/24/98         468         RTA00000524F.a.18.1         M00005211A:E09         0           3807         3/24/98         46         RTA00000524F.a.19.1         M00005212c:D10         0           3808         3/24/98         36         RTA0000052F.a.03.1 <td>3793</td> <td>3/24/98</td> <td>265</td> <td>RTA00000427F.h.02.1</td> <td>M00004085B:G01</td> <td>63652</td>	3793	3/24/98	265	RTA00000427F.h.02.1	M00004085B:G01	63652
3796         3/24/98         130         RTA00000427F.h.12.1         M00000492C:D08         36894           3797         3/24/98         243         RTA00000427F.i.15.3         M00001476D:F12         73533           3798         3/24/98         245         RTA00000427F.i.11.1         M000004097C:H08         26635           3800         3/24/98         456         RTA00000523F.o.20.1         M00005177B:H02         0           3801         3/24/98         19         RTA00000523F.o.20.1         M00005177B:H02         0           3802         3/24/98         119         RTA00000523F.o.20.1         M00005177D:F09         0           3803         3/24/98         119         RTA00000523F.p.06.1         M00005179B:H02         0           3804         3/24/98         390         RTA00000524F.a.18.1         M00005179B:H02         0           3806         3/24/98         498         RTA00000524F.a.18.1         M00005210D:C09         0           3807         3/24/98         498         RTA00000524F.a.18.1         M00005212A:D10         0           3810         3/24/98         36         RTA00000524F.a.18.1         M00005212A:D10         0           3810         3/24/98         36         RTA0000052F.a.0.1 <td>3794</td> <td>3/24/98</td> <td>235</td> <td>RTA00000427F.g.19.1</td> <td>M00004087A:B05</td> <td>64611</td>	3794	3/24/98	235	RTA00000427F.g.19.1	M00004087A:B05	64611
3797         3/24/98         243         RTA00000427F.i.11.1         M00004097C:H08         26635           3798         3/24/98         227         RTA00000427F.a.10.1         M00004097C:H08         26635           3800         3/24/98         7         RTA00000523F.a.20.1         M000005177B:H02         0           3801         3/24/98         19         RTA00000523F.a.23.1         M00005177D:F09         0           3802         3/24/98         119         RTA00000523F.p.06.1         M00005177D:F09         0           3803         3/24/98         178         RTA00000523F.p.16.1         M00005179B:H02         0           3804         3/24/98         463         RTA00000524F.a.11.1         M00005179D:B03         0           3805         3/24/98         468         RTA00000524F.a.18.1         M00005211A:E09         0           3807         3/24/98         468         RTA00000524F.a.13.1         M00005212A:D0         0           3808         3/24/98         314         RTA00000524F.a.13.1         M00005212A:D0         0           3810         3/24/98         36         RTA00000524F.a.13.1         M00005212A:D10         0           3810         3/24/98         417         RTA0000052F.a.03	3795	3/24/98	333		M00004090D:F12	62880
3798         3/24/98         227         RTA00000427F.i.10.1         M00004097C:H08         26635           3799         3/24/98         456         RTA00000523F.o.20.1         M00004038B:D01         65370           3800         3/24/98         291         RTA00000523F.o.23.1         M00005177C:G04         0           3801         3/24/98         119         RTA00000523F.o.23.1         M00005177C:G04         0           3802         3/24/98         178         RTA00000328F.o.23.1         M00005179D:B03         0           3804         3/24/98         463         RTA00000328F.o.16.1         M00005179D:B03         0           3805         3/24/98         390         RTA00000524F.a.18.1         M00005210D:C09         0           3806         3/24/98         390         RTA00000524F.a.18.1         M000052110C:E09         0           3807         3/24/98         36         RTA00000524F.a.13.1         M000052110C:E09         0           3810         3/24/98         36         RTA00000524F.b.10.1         M00005212C:E09         0           3811         3/24/98         417         RTA00000524F.b.10.1         M00005212C:AD10         0           3811         3/24/98         417         RTA00000527F.b.10.1 </td <td>3796</td> <td>3/24/98</td> <td>130</td> <td>RTA00000427F.h.12.1</td> <td>M00004092C:D08</td> <td>36894</td>	3796	3/24/98	130	RTA00000427F.h.12.1	M00004092C:D08	36894
3799 3/24/98 456 RTA00000427F.a.10.1 M00004038B:D01 65370 3800 3/24/98 7 RTA00000523F.o.20.1 M00005177B:H02 0 3801 3/24/98 119 RTA00000523F.o.20.1 M00005177D:F09 0 3803 3/24/98 119 RTA00000523F.p.06.1 M00005177D:F09 0 3804 3/24/98 463 RTA00000523F.p.16.1 M00005179B:H02 0 3805 3/24/98 463 RTA00000524F.a.11.1 M00005179D:B03 0 3806 3/24/98 468 RTA00000524F.a.18.1 M00005117A:G09 0 3807 3/24/98 468 RTA00000524F.a.18.1 M00005211A:E09 0 3808 3/24/98 468 RTA00000524F.a.18.1 M00005211A:E09 0 3808 3/24/98 29 RTA00000524F.a.18.1 M00005211A:E09 0 3809 3/24/98 36 RTA00000524F.a.11.1 M00005212A:D10 0 3810 3/24/98 417 RTA00000524F.b.10.1 M00005212A:D10 0 3811 3/24/98 417 RTA00000524F.b.10.1 M00005212A:D0 0 3812 3/24/98 48 RTA00000524F.b.10.1 M00005212A:D0 0 3813 3/24/98 48 RTA00000524F.b.10.1 M00005212A:D0 0 3814 3/24/98 384 RTA00000527F.p.03.1 M0000521A:D6 0 3813 3/24/98 384 RTA00000527F.b.03.1 M0000521B:A06 0 3814 3/24/98 384 RTA00000527F.b.11 M0000521B:A06 0 3815 3/24/98 48 RTA00000527F.b.11 M00003982B:C10 11332 3815 3/24/98 48 RTA00000527F.b.11 M00003982B:C10 11332 3816 3/24/98 47 RTA00000527F.b.11 M00003982B:C10 11332 3817 3/24/98 48 RTA00000527F.b.11 M00003982B:C10 130651 3818 3/24/98 16 RTA00000527F.b.10.1 M00003983A:F06 64915 3819 3/24/98 46 RTA00000527F.b.11 M00003983D:D03 36459 3820 3/24/98 47 RTA00000527F.b.10.1 M00003983D:D03 36459 3820 3/24/98 47 RTA00000527F.b.11 M00003983D:D03 36459 3821 3/24/98 49 RTA00000527F.b.02.1 M00003985A:C01 17240 3822 3/24/98 49 RTA00000527F.b.02.1 M00003985A:C01 17240 3823 3/24/98 49 RTA00000527F.b.02.1 M00003985D:E03 36856 3820 3/24/98 49 RTA00000527F.b.02.1 M00003985A:C01 17240 3823 3/24/98 49 RTA00000527F.b.02.1 M00003985A:C01 17240 3824 3/24/98 49 RTA00000527F.b.02.1 M00003985A:C01 17240 3823 3/24/98 49 RTA00000527F.b.02.1 M0000402PA:A08 24175 3825 3/24/98 49 RTA00000527F.b.02.1 M0000402PA:A08 24175 3826 3/24/98 49 RTA00000527F.b.02.1 M00004039D:B10 66572 3833 3/24/98 414 RTA00000525F.b.09.1 M00004039C:E02 36013 3834 3/24/98 444 RTA00000525F.b.09.1 M00004039C:C02 23798 3833 3/24/9	3797	3/24/98	243	RTA00000424F.c.15.3	M00001476D:F12	73533
3800 3/24/98 291 RTA00000523F.o.20.1 M00005177B:H02 0 3801 3/24/98 119 RTA00000523F.o.23.1 M00005177C:G04 0 3802 3/24/98 119 RTA00000523F.o.26.1 M00005177D:F09 0 3803 3/24/98 178 RTA00000523F.o.16.1 M00005177D:F09 0 3804 3/24/98 463 RTA00000523F.o.16.1 M00005179B:H02 0 3805 3/24/98 468 RTA00000524F.a.11.1 M0000517D:D03 0 3806 3/24/98 468 RTA00000524F.a.18.1 M00005211A:E09 0 3807 3/24/98 29 RTA00000524F.b.03.1 M00005211A:E09 0 3808 3/24/98 29 RTA00000524F.b.03.1 M00005211C:E09 0 3809 3/24/98 36 RTA00000524F.b.10.1 M00005211C:E09 0 3810 3/24/98 182 RTA00000524F.b.10.1 M00005211C:E09 0 3811 3/24/98 182 RTA00000524F.b.10.1 M00005211C:E09 0 3812 3/24/98 384 RTA00000524F.b.10.1 M00005211C:E09 0 3813 3/24/98 384 RTA00000527F.b.03.1 M00004029B:A06 5940 3814 3/24/98 84 RTA00000527F.b.03.1 M00004029B:A06 5940 3815 3/24/98 48 RTA00000527F.b.18.1 M00003982B:C10 11332 3815 3/24/98 48 RTA00000527F.b.11 M00003982B:C10 11332 3816 3/24/98 48 RTA00000527F.b.11 M00003982B:C10 11332 3818 3/24/98 48 RTA00000527F.b.11 M00003983A:F06 64915 3818 3/24/98 47 RTA00000527F.b.11 M00003983A:D02 13016 3818 3/24/98 16 RTA00000527F.l.10.1 M00003983A:D02 13016 3819 3/24/98 16 RTA00000527F.l.11 M00003983D:E08 36856 3820 3/24/98 477 RTA00000527F.l.11 M00003983D:E08 36856 3820 3/24/98 49 RTA00000527F.n.02.1 M00003983D:E02 36439 3821 3/24/98 126 RTA00000527F.n.02.1 M00003983D:E02 36439 3822 3/24/98 49 RTA00000527F.n.02.1 M00003983D:E02 36439 3823 3/24/98 49 RTA00000527F.n.02.1 M00003983D:E02 36439 3824 3/24/98 126 RTA00000527F.n.02.1 M00004029B:A01 36844 3828 3/24/98 49 RTA00000527F.n.02.1 M00004029B:A01 36843 3829 3/24/98 49 RTA00000527F.p.02.1 M00004029B:A01 36843 3833 3/24/98 49 RTA00000527F.p.02.1 M00004029B:A01 36843 3834 3/24/98 414 RTA00000525F.b.09.1 M00004039B:B00 63740 3833 3/24/98 414 RTA00000525F.b.09.1 M00004039B:A01 36844 3833 3/24/98 414 RTA00000525F.b.09.1 M0000403	3798	3/24/98	227	RTA00000427F.i.11.1	M00004097C:H08	26635
3801         3/24/98         291         RTA00000523F.p.06.1         M00005177D:F09         0           3802         3/24/98         119         RTA00000428F.a.12.1         M00005177D:F09         0           3803         3/24/98         178         RTA00000528F.p.16.1         M00005179D:B03         0           3804         3/24/98         463         RTA00000524F.a.18.1         M00005210D:C09         0           3806         3/24/98         468         RTA00000524F.a.18.1         M00005211A:E09         0           3807         3/24/98         468         RTA00000524F.a.23.1         M00005211A:E09         0           3808         3/24/98         29         RTA00000524F.b.03.1         M00005211A:E09         0           3809         3/24/98         36         RTA00000524F.b.03.1         M00005212A:D10         0           3810         3/24/98         36         RTA00000524F.b.17.1         M00005212B:A06         0           3811         3/24/98         417         RTA00000527F.b.17.1         M00005214B:A06         0           3812         3/24/98         48         RTA00000527F.b.09.1         M0000402PB:A06         5940           3814         3/24/98         84         RTA00000527F.b.18.1	3799	3/24/98	456	RTA00000427F.a.10.1	M00004038B:D01	65370
3802 3/24/98 119 RTA0000523F.p.06.1 M00005177D:F09 0 3803 3/24/98 178 RTA00000428F.a.12.1 M00005179B:H02 0 3804 3/24/98 463 RTA00000523F.p.16.1 M00005179D:B03 0 3805 3/24/98 390 RTA00000524F.a.11.1 M00005210D:C09 0 3806 3/24/98 114 RTA00000524F.a.18.1 M00005211A:E09 0 3807 3/24/98 114 RTA00000524F.a.23.1 M00005211A:E09 0 3808 3/24/98 29 RTA00000524F.b.03.1 M00005211A:E09 0 3809 3/24/98 36 RTA00000524F.b.10.1 M00005212D:F08 0 3810 3/24/98 417 RTA00000524F.b.10.1 M00005214B:A06 0 3811 3/24/98 348 RTA0000042F.b.10.1 M00005214B:A06 0 3812 3/24/98 348 RTA0000042F.b.10.1 M00005214B:A06 0 3813 3/24/98 384 RTA00000527F.b.03.1 M00004029B:A06 5940 3814 3/24/98 384 RTA00000527F.k.18.1 M00003982B:H10 36051 3815 3/24/98 48 RTA00000527F.k.18.1 M00003982B:H10 36051 3816 3/24/98 271 RTA00000527F.k.18.1 M00003982B:H10 36051 3817 3/24/98 367 RTA00000527F.b.05.1 M00003983A:F06 64915 3818 3/24/98 367 RTA00000527F.b.05.1 M00003983A:F06 64915 3823 3/24/98 367 RTA00000527F.b.10.1 M00003983D:B08 36856 3820 3/24/98 477 RTA00000527F.b.10.1 M00003983D:B08 36856 3820 3/24/98 477 RTA00000527F.b.10.1 M00003983D:B08 36856 3821 3/24/98 367 RTA00000527F.b.10.1 M00003983D:B08 36856 3822 3/24/98 477 RTA00000527F.b.0.1 M00003983D:B08 36856 3823 3/24/98 367 RTA00000527F.b.0.1 M00003983D:B08 36856 3824 3/24/98 477 RTA00000527F.b.0.1 M00003983D:B08 36856 3825 3/24/98 49 RTA00000527F.m.05.1 M00003985A:C01 17240 3823 3/24/98 89 RTA00000527F.m.05.1 M00003986D:H12 15939 3824 3/24/98 49 RTA00000527F.n.00.1 M00003986D:H12 15939 3824 3/24/98 49 RTA00000527F.n.00.1 M0000402Pa:A01 36844 3825 3/24/98 49 RTA00000527F.p.00.1 M0000402Pa:A01 36844 3826 3/24/98 376 RTA00000527F.p.00.1 M0000402Pa:A01 36844 3827 3/24/98 478 RTA00000527F.p.00.1 M0000402Pa:A01 36844 3828 3/24/98 478 RTA00000527F.p.00.1 M0000402Pa:A01 36844 3828 3/24/98 376 RTA00000527F.p.00.1 M0000403Pa:D00 66572 3837 3/24/98 478 RTA00000527F.p.00.1 M0000403Pa:D00 66572 38383 3/24/98 414 RTA00000525F.b.05.1 M0000403Pa:D00 66550 3839 3/24/98 414 RTA00000525F.b.05.1 M0000403AC:P05 21116 3837 3/24/98 444	3800	3/24/98	7	RTA00000523F.o.20.1	M00005177B:H02	0
3803 3/24/98 178 RTA0000428F.a.12.1 M00005179B:H02 0 3804 3/24/98 463 RTA00000529F.p.16.1 M00005179D:B03 0 3805 3/24/98 390 RTA00000524F.a.11.1 M00005210D:C09 0 3806 3/24/98 468 RTA00000524F.a.18.1 M00005211A:E09 0 3807 3/24/98 114 RTA00000524F.a.23.1 M00005211C:E09 0 3808 3/24/98 29 RTA00000524F.a.16.1 M00005212A:D10 0 3809 3/24/98 417 RTA00000524F.b.03.1 M00005212A:D10 0 3810 3/24/98 417 RTA00000524F.b.10.1 M00005212A:D0 0 3811 3/24/98 182 RTA00000524F.b.10.1 M00005212A:D0 0 3812 3/24/98 348 RTA0000052F.b.17.1 M00004214B:A06 0 3813 3/24/98 384 RTA0000052TF.i.09.1 M0000407C:E03 65916 3813 3/24/98 84 RTA0000052TF.b.03.1 M00004029B:A06 5940 3814 3/24/98 48 RTA0000527F.k.21.1 M00003982B:C10 11332 3815 3/24/98 48 RTA00000527F.k.21.1 M00003982B:H10 36051 3816 3/24/98 271 RTA00000527F.i.05.1 M00003983A:D02 13016 3818 3/24/98 16 RTA00000527F.i.05.1 M00003983A:D02 13016 3818 3/24/98 16 RTA00000527F.i.05.1 M00003983A:G02 30002 3819 3/24/98 367 RTA00000527F.i.19.1 M00003983D:B08 36856 3820 3/24/98 477 RTA00000527F.i.19.1 M00003983D:B08 36856 3821 3/24/98 126 RTA00000527F.i.05.1 M00003983D:B08 36856 3822 3/24/98 89 RTA00000527F.i.02.1 M00003983D:B03 36439 3823 3/24/98 263 RTA00000527F.i.02.1 M00003983D:B03 36439 3824 3/24/98 49 RTA00000527F.i.07.1 M00003983D:B0 36655 3826 3/24/98 367 RTA00000527F.i.07.1 M00003983D:B0 36655 3826 3/24/98 37 RTA00000527F.i.07.1 M000039850:C01 17240 3823 3/24/98 49 RTA00000527F.p.02.1 M00004029E:B01 166572 3829 3/24/98 37 RTA00000527F.p.06.1 M00004029C:F02 36013 3829 3/24/98 478 RTA00000527F.p.06.1 M00004029C:F02 36013 3833 3/24/98 478 RTA00000527F.p.06.1 M00004039C:E02 37895 3829 3/24/98 478 RTA00000527F.p.06.1 M00004039C:E02 37895 3833 3/24/98 478 RTA00000527F.p.06.1 M00004039C:E02 37895 3836 3/24/98 478 RTA00000527F.p.06.1 M00004039C:E02 37895 3837 3/24/98 478 RTA00000527F.p.06.1 M00004039C:E02 37895 3838 3/24/98 478 RTA00000527F.p.06.1 M00004030C:A08 18176 3837 3/24/98 478 RTA00000525F.b.05.1 M00004030C:A08 18176 3837 3/24/98 478 RTA00000525F.b.05.1 M00004030C:A08 18176 3838 3/24/98 478	3801	3/24/98	291	RTA00000523F.o.23.1	M00005177C:G04	0
3804 3/24/98 463 RTA00000523F.p.16.1 M00005179D:B03 0 3805 3/24/98 390 RTA00000524F.a.11.1 M0000521D:C09 0 3806 3/24/98 114 RTA00000524F.a.18.1 M0000521L0:E09 0 3807 3/24/98 114 RTA00000524F.a.23.1 M0000521L0:E09 0 3808 3/24/98 29 RTA00000524F.b.03.1 M0000521D:C09 0 3809 3/24/98 36 RTA00000524F.b.03.1 M0000521D:C09 0 3810 3/24/98 36 RTA00000524F.b.10.1 M0000521D:F08 0 3810 3/24/98 182 RTA00000524F.b.10.1 M0000521D:F08 0 3811 3/24/98 182 RTA0000524F.b.17.1 M00005212D:F08 0 3812 3/24/98 384 RTA00000427F.i.09.1 M00004097C:E03 65916 3813 3/24/98 384 RTA00000527F.p.03.1 M0000409P:A06 5940 3814 3/24/98 384 RTA00000527F.b.18.1 M00003982B:C10 11332 3815 3/24/98 48 RTA00000527F.k.18.1 M00003982B:C10 11332 3816 3/24/98 271 RTA00000527F.i.05.1 M00003982B:C10 11332 3817 3/24/98 16 RTA00000426F.m.22.1 M00003983A:D02 13016 3818 3/24/98 16 RTA00000426F.m.22.1 M00003983A:G02 30002 3819 3/24/98 367 RTA00000527F.i.19.1 M00003983D:E08 36856 3820 3/24/98 477 RTA00000527F.i.19.1 M00003983D:E08 36856 3820 3/24/98 49 RTA00000527F.i.02.1 M00003983D:H02 36856 3821 3/24/98 49 RTA00000527F.m.05.1 M00003983D:H02 36856 3823 3/24/98 49 RTA00000527F.m.05.1 M00003985.C01 17240 3823 3/24/98 49 RTA00000527F.m.05.1 M00003986C:G11 24190 3823 3/24/98 49 RTA00000527F.n.02.1 M00003986D:H12 15939 3824 3/24/98 49 RTA00000527F.n.02.1 M00003986D:H12 15939 3824 3/24/98 49 RTA00000527F.n.02.1 M00004027A:A08 24175 3825 3/24/98 49 RTA00000527F.p.02.1 M00004029B:D10 66572 3827 3/24/98 49 RTA00000527F.p.02.1 M00004029B:G10 1292 3830 3/24/98 478 RTA00000527F.p.08.1 M00004029C:F02 36013 3831 3/24/98 478 RTA00000527F.p.08.1 M00004039D:B10 66572 3833 3/24/98 478 RTA00000527F.p.08.1 M00004030B:D18 63740 3834 3/24/98 478 RTA00000527F.p.08.1 M00004030B:D18 63740 3834 3/24/98 478 RTA00000527F.p.09.1 M00004030B:D18 63740 3833 3/24/98 478 RTA00000527F.p.09.1 M00004030B:D18 63740 3834 3/24/98 478 RTA00000527F.p.09.1 M00004030B:D18 63740 3835 3/24/98 478 RTA00000527F.p.09.1 M00004030B:D18 63740 3836 3/24/98 345 RTA00000527F.p.09.1 M00004030B:D18 63740 3836 3/24/98 345 RT	3802	3/24/98	119	RTA00000523F.p.06.1	M00005177D:F09	0
3805         3/24/98         390         RTA00000524F.a.II.1         M00005210D:C09         0           3806         3/24/98         468         RTA00000524F.a.I8.I         M00005211A:E09         0           3807         3/24/98         29         RTA00000524F.b.03.I         M00005211C:E09         0           3808         3/24/98         29         RTA00000524F.b.03.I         M00005212D:F08         0           3810         3/24/98         417         RTA00000524F.b.17.I         M00005213C:A01         0           3811         3/24/98         418         RTA00000524F.b.17.I         M00005214B:A06         0           3813         3/24/98         348         RTA00000527F.b.03.I         M00004029B:A06         5940           3814         3/24/98         348         RTA00000527F.b.18.I         M00003982B:C10         11332           3815         3/24/98         48         RTA00000527F.b.21.I         M00003982B:C10         11332           3816         3/24/98         48         RTA00000527F.b.21.I         M00003983A:D02         13016           3817         3/24/98         246         RTA00000527F.b.21.I         M00003983A:D02         13016           3818         3/24/98         46         RTA000000527F.b.	3803	3/24/98	178	RTA00000428F.a.12.1	M00005179B:H02	0
3806         3/24/98         468         RTA00000524F.a.18.1         M00005211A:E09         0           3807         3/24/98         114         RTA00000524F.a.23.1         M00005211C:E09         0           3808         3/24/98         29         RTA00000524F.b.03.1         M00005212A:D10         0           3809         3/24/98         36         RTA00000524F.b.10.1         M00005212C:A01         0           3811         3/24/98         417         RTA00000524F.b.17.1         M00005213C:A01         0           3812         3/24/98         348         RTA00000527F.i.09.1         M00004097C:E03         65916           3813         3/24/98         348         RTA00000527F.i.09.1         M000040998:A06         5940           3814         3/24/98         84         RTA00000527F.i.81.81         M00003982B:C10         11332           3815         3/24/98         84         RTA00000527F.i.21.1         M00003983A:D02         13016           3817         3/24/98         246         RTA00000527F.i.21.1         M00003983A:F06         64915           3818         3/24/98         16         RTA00000527F.i.21.1         M00003983A:F06         64915           3818         3/24/98         367         RTA00000527	3804	3/24/98	463	RTA00000523F.p.16.1	M00005179D:B03	0
3807         3/24/98         114         RTA00000524F.a.23.1         M00005211C:E09         0           3808         3/24/98         29         RTA00000524F.b.03.1         M00005212A:D10         0           3809         3/24/98         36         RTA00000524F.b.10.1         M00005212D:F08         0           3810         3/24/98         417         RTA00000524F.b.10.1         M00005213C:A01         0           3811         3/24/98         182         RTA00000527F.b.01.1         M00004097C:E03         65916           3813         3/24/98         348         RTA00000527F.b.03.1         M00004029B:A06         5940           3814         3/24/98         84         RTA00000527F.b.03.1         M00004029B:A06         5940           3815         3/24/98         84         RTA00000527F.b.03.1         M00003982B:C10         11332           3816         3/24/98         48         RTA00000527F.b.21.1         M00003983A:D02         13016           3817         3/24/98         246         RTA00000527F.b.21.1         M00003983A:D02         13016           3818         3/24/98         16         RTA00000527F.b.21.1         M00003983A:G02         30002           3820         3/24/98         47         RTA00000527	3805	3/24/98	390	RTA00000524F.a.11.1	M00005210D:C09	0
3808         3/24/98         29         RTA00000524F.b.03.1         M00005212A:D10         0           3809         3/24/98         36         RTA00000428F.a.16.1         M00005212D:F08         0           3810         3/24/98         417         RTA00000524F.b.10.1         M00005213C:A01         0           3811         3/24/98         182         RTA00000527F.b.19.1         M00004097C:E03         65916           3813         3/24/98         348         RTA00000527F.b.09.1         M00004097C:E03         65916           3813         3/24/98         384         RTA00000527F.b.01.1         M00004029B:A06         5940           3814         3/24/98         84         RTA00000527F.b.18.1         M00003982B:C10         11332           3815         3/24/98         271         RTA00000527F.b.01.1         M00003983A:D02         13016           3817         3/24/98         271         RTA00000527F.b.01.1         M00003983A:G02         30002           3818         3/24/98         16         RTA00000527F.b.21.1         M00003983D:B02         30002           3820         3/24/98         477         RTA00000527F.b.21.1         M00003983D:B03         36856           3820         3/24/98         126         RTA	3806	3/24/98	468	RTA00000524F.a.18.1	M00005211A:E09	
3809         3/24/98         36         RTA00000428F.a.16.1         M00005212D:F08         0           3810         3/24/98         417         RTA00000524F.b.10.1         M00005213C:A01         0           3811         3/24/98         182         RTA00000527F.b.17.1         M00004097C:E03         65916           3812         3/24/98         348         RTA00000527F.b.03.1         M00004029B:A06         5940           3813         3/24/98         384         RTA00000527F.b.13.1         M00004029B:A06         5940           3814         3/24/98         84         RTA00000527F.b.13.1         M00003982B:C10         11332           3815         3/24/98         48         RTA00000527F.b.13.1         M00003983A:D02         13016           3817         3/24/98         246         RTA00000527F.b.05.1         M00003983A:G02         30002           3818         3/24/98         16         RTA00000527F.b.12.1         M00003983A:G02         30002           3819         3/24/98         367         RTA00000527F.b.12.1         M00003985A:G01         17240           3821         3/24/98         477         RTA00000527F.b.05.1         M00003985A:C01         17240           3823         3/24/98         263	3807	3/24/98	114	RTA00000524F.a.23.1	M00005211C:E09	0
3810         3/24/98         417         RTA00000524F.b.10.1         M00005213C:A01         0           3811         3/24/98         182         RTA00000524F.b.17.1         M00005214B:A06         0           3812         3/24/98         348         RTA00000427F.i.09.1         M00004097C:E03         65916           3813         3/24/98         384         RTA00000527F.p.03.1         M00004029B:A06         5940           3814         3/24/98         84         RTA00000527F.k.18.1         M00003982B:C10         11332           3815         3/24/98         48         RTA00000527F.k.21.1         M00003982B:H10         36051           3816         3/24/98         271         RTA00000527F.l.05.1         M00003983A:D02         13016           3817         3/24/98         216         RTA00000426F.m.21.1         M00003983A:G02         30002           3818         3/24/98         367         RTA00000527F.l.19.1         M00003983D:E08         36856           3820         3/24/98         477         RTA00000527F.n.05.1         M00003985A:C01         17240           3821         3/24/98         89         RTA00000527F.n.05.1         M00003985A:C01         17240           3823         3/24/98         89 <td< td=""><td>3808</td><td>3/24/98</td><td>29</td><td>RTA00000524F.b.03.1</td><td>M00005212A:D10</td><td>0</td></td<>	3808	3/24/98	29	RTA00000524F.b.03.1	M00005212A:D10	0
3811         3/24/98         182         RTA00000524F.b.17.1         M00005214B:A06         0           3812         3/24/98         348         RTA00000427F.i.09.1         M00004097C:E03         65916           3813         3/24/98         384         RTA00000527F.p.03.1         M00004029B:A06         5940           3814         3/24/98         84         RTA00000527F.k.21.1         M00003982B:C10         11332           3815         3/24/98         48         RTA00000527F.k.21.1         M00003982B:H10         36051           3816         3/24/98         271         RTA00000527F.k.21.1         M00003983A:D02         13016           3817         3/24/98         246         RTA00000527F.m.21.1         M00003983A:G02         30002           3818         3/24/98         16         RTA00000527F.m.21.1         M00003983D:D02         36856           3820         3/24/98         367         RTA00000527F.m.05.1         M00003985A:C01         17240           3821         3/24/98         126         RTA00000527F.m.05.1         M00003985A:C01         17240           3822         3/24/98         89         RTA00000527F.m.02.1         M00004029A:A08         24175           3824         3/24/98         49	3809	3/24/98	36	RTA00000428F.a.16.1	M00005212D:F08	
3812         3/24/98         348         RTA00000427F.i.09.1         M00004097C:E03         65916           3813         3/24/98         384         RTA00000527F.p.03.1         M00004029B:A06         5940           3814         3/24/98         84         RTA00000527F.k.18.1         M00003982B:C10         11332           3815         3/24/98         48         RTA00000527F.k.21.1         M00003982B:H10         36051           3816         3/24/98         271         RTA00000527F.l.05.1         M00003983A:D02         13016           3817         3/24/98         246         RTA00000527F.l.05.1         M00003983A:G02         30002           3818         3/24/98         16         RTA00000527F.l.19.1         M00003985A:G02         30002           3819         3/24/98         367         RTA00000527F.n.02.1         M00003985A:C01         17240           3821         3/24/98         477         RTA00000527F.n.05.1         M00003985A:C01         17240           3822         3/24/98         89         RTA00000527F.n.02.1         M00003985A:C01         17240           3823         3/24/98         89         RTA00000527F.n.02.1         M00004027A:A08         24175           3824         3/24/98         49	3810	3/24/98	417	RTA00000524F.b.10.1	M00005213C:A01	0
3813         3/24/98         384         RTA00000527F.p.03.1         M00004029B:A06         5940           3814         3/24/98         84         RTA00000527F.k.18.1         M00003982B:C10         11332           3815         3/24/98         48         RTA00000527F.k.21.1         M00003983A:D02         13016           3816         3/24/98         246         RTA00000527F.l.05.1         M00003983A:D02         13016           3817         3/24/98         16         RTA00000426F.m.21.1         M00003983A:F06         64915           3818         3/24/98         16         RTA00000527F.l.19.1         M00003983A:G02         30002           3819         3/24/98         367         RTA00000527F.n.02.1         M00003985A:C01         36856           3820         3/24/98         477         RTA00000527F.m.05.1         M00003985A:C01         17240           3822         3/24/98         89         RTA00000527F.m.02.1         M00003986D:H12         15939           3824         3/24/98         89         RTA00000527F.n.02.1         M00003986D:H12         15939           3824         3/24/98         49         RTA00000527F.n.02.1         M00004029A:A:B10         36865           3825         3/24/98         336	3811	3/24/98	182	RTA00000524F.b.17.1	M00005214B:A06	0
3814         3/24/98         84         RTA00000527F.k.18.1         M00003982B:C10         11332           3815         3/24/98         48         RTA00000527F.k.21.1         M00003982B:H10         36051           3816         3/24/98         271         RTA00000527F.l.05.1         M00003983A:D02         13016           3817         3/24/98         246         RTA00000426F.m.21.1         M00003983A:D02         30002           3819         3/24/98         16         RTA00000527F.l.19.1         M00003983A:G02         30002           3820         3/24/98         367         RTA00000527F.l.19.1         M00003983A:G02         30002           3821         3/24/98         477         RTA00000527F.m.05.1         M00003983D:H02         36439           3821         3/24/98         126         RTA00000527F.m.05.1         M00003985A:C01         17240           3822         3/24/98         89         RTA00000527F.n.02.1         M00003985A:C01         17240           3823         3/24/98         263         RTA00000527F.n.07.1         M00003985A:C01         1294           3824         3/24/98         49         RTA00000527F.n.02.1         M00004027A:A08         24175           3825         3/24/98         36	3812	3/24/98	348	RTA00000427F.i.09.1	M00004097C:E03	65916
3815         3/24/98         48         RTA00000527F.k.21.1         M00003982B:H10         36051           3816         3/24/98         271         RTA00000527F.l.05.1         M00003983A:D02         13016           3817         3/24/98         246         RTA00000426F.m.21.1         M00003983A:F06         64915           3818         3/24/98         16         RTA00000426F.m.22.1         M00003983A:G02         30002           3819         3/24/98         367         RTA00000527F.l.19.1         M00003983D:B08         36856           3820         3/24/98         477         RTA00000527F.l.19.1         M00003983D:H02         36439           3821         3/24/98         126         RTA00000527F.m.05.1         M00003985A:C01         17240           3822         3/24/98         89         RTA00000527F.m.02.1         M00003986C:G11         24190           3823         3/24/98         263         RTA00000527F.n.02.1         M00003986C:G11         24190           3824         3/24/98         49         RTA00000527F.n.02.1         M00004029A::B10         36865           3825         3/24/98         49         RTA00000527F.p.02.1         M00004029B::G10         36865           3826         3/24/98         27	3813	3/24/98	384		M00004029B:A06	5940
3816         3/24/98         271         RTA00000527F.1.05.1         M00003983A:D02         13016           3817         3/24/98         246         RTA00000426F.m.21.1         M00003983A:F06         64915           3818         3/24/98         16         RTA00000426F.m.22.1         M00003983A:G02         30002           3819         3/24/98         367         RTA00000527F.1.19.1         M00003983D:E08         36856           3820         3/24/98         477         RTA00000527F.m.05.1         M00003985A:C01         17240           3821         3/24/98         126         RTA00000527F.m.05.1         M00003986C:G11         24190           3823         3/24/98         89         RTA00000527F.n.02.1         M00003986D:H12         15939           3824         3/24/98         263         RTA00000527F.n.07.1         M00003986D:H12         15939           3824         3/24/98         49         RTA00000527F.n.07.1         M00004027A:A08         24175           3825         3/24/98         49         RTA00000527F.n.02.1         M00004028A:B10         36865           3826         3/24/98         336         RTA0000052F.n.02.1         M00004029B:A01         36844           3828         3/24/98         27	3814	3/24/98	84	RTA00000527F.k.18.1	M00003982B:C10	
3817         3/24/98         246         RTA00000426F.m.21.1         M00003983A:F06         64915           3818         3/24/98         16         RTA00000426F.m.22.1         M00003983A:G02         30002           3819         3/24/98         367         RTA00000527F.l.19.1         M00003983D:E08         36856           3820         3/24/98         477         RTA00000527F.m.05.1         M00003983D:H02         36439           3821         3/24/98         126         RTA00000527F.m.05.1         M00003985A:C01         17240           3822         3/24/98         89         RTA00000527F.n.02.1         M00003986C:G11         24190           3823         3/24/98         263         RTA00000527F.n.07.1         M00003986D:H12         15939           3824         3/24/98         49         RTA00000527F.n.07.1         M00004027A:A08         24175           3825         3/24/98         49         RTA00000527F.n.22.1         M00004027A:A08         24175           3826         3/24/98         336         RTA00000426F.m.04.1         M00004029B:A01         36865           3827         3/24/98         27         RTA00000527F.p.02.1         M00004029B:G10         1292           3830         3/24/98         17		3/24/98				
3818         3/24/98         16         RTA00000426F.m.22.1         M00003983A:G02         30002           3819         3/24/98         367         RTA00000527F.l.19.1         M00003983D:E08         36856           3820         3/24/98         477         RTA00000527F.l.21.1         M00003983D:H02         36439           3821         3/24/98         126         RTA00000527F.m.05.1         M00003985A:C01         17240           3822         3/24/98         89         RTA00000527F.n.02.1         M00003986C:G11         24190           3823         3/24/98         263         RTA00000527F.n.07.1         M00003986D:H12         15939           3824         3/24/98         49         RTA00000527F.n.02.1         M00004027A:A08         24175           3825         3/24/98         49         RTA00000426F.m.04.1         M00004029A:B10         36865           3826         3/24/98         336         RTA00000527F.p.02.1         M00004039D:B10         66572           3827         3/24/98         27         RTA00000527F.p.02.1         M00004039E:E02         37895           3829         3/24/98         17         RTA00000527F.p.08.1         M00004029C:F02         36013           3831         3/24/98         478	3816	3/24/98		RTA00000527F.1.05.1		
3819         3/24/98         367         RTA00000527F.1.19.1         M00003983D:E08         36856           3820         3/24/98         477         RTA00000527F.1.21.1         M00003983D:H02         36439           3821         3/24/98         126         RTA00000527F.m.05.1         M00003985A:C01         17240           3822         3/24/98         89         RTA00000527F.n.02.1         M00003986C:G11         24190           3823         3/24/98         263         RTA00000527F.n.07.1         M00003986D:H12         15939           3824         3/24/98         49         RTA00000527F.n.22.1         M00004027A:A08         24175           3825         3/24/98         49         RTA00000527F.n.22.1         M00004028A:B10         36865           3826         3/24/98         336         RTA00000426F.m.04.1         M00004039D:B10         66572           3827         3/24/98         27         RTA00000527F.p.02.1         M00004029B:A01         36844           3828         3/24/98         297         RTA00000527F.p.06.1         M00004039C:E02         37895           3829         3/24/98         17         RTA00000527F.p.06.1         M00004029C:F02         36013           3831         3/24/98         478	3817	3/24/98		RTA00000426F.m.21.1		
3820         3/24/98         477         RTA00000527F.I.21.1         M00003983D:H02         36439           3821         3/24/98         126         RTA00000527F.m.05.1         M00003985A:C01         17240           3822         3/24/98         89         RTA00000527F.n.02.1         M00003986C:G11         24190           3823         3/24/98         263         RTA00000527F.n.07.1         M00003986D:H12         15939           3824         3/24/98         49         RTA00000527F.n.22.1         M00004027A:A08         24175           3825         3/24/98         49         RTA00000426F.m.04.1         M00004028A:B10         36865           3826         3/24/98         336         RTA00000527F.p.02.1         M00004039D:B10         66572           3827         3/24/98         27         RTA00000527F.p.02.1         M00004029B:A01         36844           3828         3/24/98         297         RTA00000527F.p.06.1         M00004039C:E02         37895           3829         3/24/98         17         RTA00000527F.p.08.1         M00004029C:F02         36013           3831         3/24/98         478         RTA00000527F.p.09.1         M00004029C:F05         7694           3832         3/24/98         414		3/24/98				
3821         3/24/98         126         RTA00000527F.m.05.1         M00003985A:C01         17240           3822         3/24/98         89         RTA00000527F.n.02.1         M00003986C:G11         24190           3823         3/24/98         263         RTA00000527F.n.07.1         M000003986D:H12         15939           3824         3/24/98         49         RTA00000527F.n.22.1         M00004027A:A08         24175           3825         3/24/98         449         RTA00000426F.m.04.1         M00004039D:B10         66572           3826         3/24/98         336         RTA00000527F.p.02.1         M00004039D:B10         66572           3827         3/24/98         27         RTA00000527F.p.02.1         M00004039C:E02         37895           3829         3/24/98         17         RTA00000527F.p.06.1         M00004029B:G10         1292           3830         3/24/98         310         RTA00000527F.p.08.1         M00004029C:F02         36013           3831         3/24/98         478         RTA00000527F.p.09.1         M00004029C:F05         7694           3832         3/24/98         253         RTA00000426F.m.08.1         M00004030B:A12         63781           3834         3/24/98         345						
3822         3/24/98         89         RTA00000527F.n.02.1         M00003986C:G11         24190           3823         3/24/98         263         RTA00000527F.n.07.1         M00003986D:H12         15939           3824         3/24/98         49         RTA00000527F.n.22.1         M00004027A:A08         24175           3825         3/24/98         449         RTA00000426F.m.04.1         M00004028A:B10         36865           3826         3/24/98         336         RTA00000426F.n.17.1         M00004039D:B10         66572           3827         3/24/98         27         RTA00000527F.p.02.1         M00004029B:A01         36844           3828         3/24/98         297         RTA00000527F.p.02.1         M00004039C:E02         37895           3829         3/24/98         17         RTA00000527F.p.06.1         M00004029B:G10         1292           3830         3/24/98         310         RTA00000527F.p.08.1         M00004029C:F02         36013           3831         3/24/98         478         RTA00000527F.p.09.1         M00004030B:A12         63781           3833         3/24/98         453         RTA00000426F.m.08.1         M00004030B:D08         63740           3834         3/24/98         345						
3823         3/24/98         263         RTA00000527F.n.07.1         M00003986D:H12         15939           3824         3/24/98         49         RTA00000527F.n.22.1         M00004027A:A08         24175           3825         3/24/98         449         RTA00000426F.m.04.1         M00004028A:B10         36865           3826         3/24/98         336         RTA00000426F.n.17.1         M00004039D:B10         66572           3827         3/24/98         27         RTA00000527F.p.02.1         M00004029B:A01         36844           3828         3/24/98         297         RTA00000527F.p.02.1         M00004039C:E02         37895           3829         3/24/98         17         RTA00000527F.p.06.1         M00004029B:G10         1292           3830         3/24/98         310         RTA00000527F.p.08.1         M00004029C:F02         36013           3831         3/24/98         478         RTA00000527F.p.09.1         M00004029C:F05         7694           3832         3/24/98         253         RTA00000426F.m.08.1         M00004030B:A12         63781           3833         3/24/98         345         RTA00000426F.m.23.1         M00004030C:A08         18176           3834         3/24/98         98						
3824         3/24/98         49         RTA00000527F.n.22.1         M00004027A:A08         24175           3825         3/24/98         449         RTA00000426F.m.04.1         M00004028A:B10         36865           3826         3/24/98         336         RTA00000426F.n.17.1         M00004039D:B10         66572           3827         3/24/98         27         RTA00000527F.p.02.1         M00004029B:A01         36844           3828         3/24/98         297         RTA00000525F.c.11.1         M00004039C:E02         37895           3829         3/24/98         17         RTA00000527F.p.06.1         M00004029B:G10         1292           3830         3/24/98         310         RTA00000527F.p.09.1         M00004029C:F02         36013           3831         3/24/98         478         RTA00000527F.p.09.1         M00004029C:F05         7694           3832         3/24/98         253         RTA00000527F.p.09.1         M00004030B:A12         63781           3833         3/24/98         414         RTA00000426F.m.12.1         M00004030B:D08         63740           3834         3/24/98         345         RTA00000525F.b.05.1         M00004030C:C02         23798           3836         3/24/98         115	3822	3/24/98	89			
3825         3/24/98         449         RTA00000426F.m.04.1         M00004028A:B10         36865           3826         3/24/98         336         RTA00000426F.n.17.1         M00004039D:B10         66572           3827         3/24/98         27         RTA00000527F.p.02.1         M00004029B:A01         36844           3828         3/24/98         297         RTA00000527F.p.06.1         M00004039C:E02         37895           3829         3/24/98         17         RTA00000527F.p.06.1         M00004029B:G10         1292           3830         3/24/98         310         RTA00000527F.p.08.1         M00004029C:F02         36013           3831         3/24/98         478         RTA00000527F.p.09.1         M00004029C:F05         7694           3832         3/24/98         253         RTA00000426F.m.08.1         M00004030B:A12         63781           3833         3/24/98         414         RTA00000426F.m.23.1         M00004030B:D08         63740           3834         3/24/98         345         RTA00000426F.n.23.1         M00004030C:A08         18176           3835         3/24/98         98         RTA00000525F.b.05.1         M00004034C:F05         21116           3837         3/24/98         444						
3826         3/24/98         336         RTA00000426F.n.17.1         M00004039D:B10         66572           3827         3/24/98         27         RTA00000527F.p.02.1         M00004029B:A01         36844           3828         3/24/98         297         RTA00000525F.c.11.1         M00004039C:E02         37895           3829         3/24/98         17         RTA00000527F.p.06.1         M00004029B:G10         1292           3830         3/24/98         310         RTA00000527F.p.08.1         M00004029C:F02         36013           3831         3/24/98         478         RTA00000527F.p.09.1         M00004029C:F05         7694           3832         3/24/98         253         RTA00000527F.p.09.1         M00004030B:A12         63781           3833         3/24/98         253         RTA00000426F.m.08.1         M00004030B:D08         63740           3834         3/24/98         345         RTA00000426F.n.23.1         M00004030C:A08         18176           3835         3/24/98         98         RTA00000525F.b.05.1         M00004034C:F05         21116           3837         3/24/98         115         RTA00000525F.b.09.1         M00004036A:A11         66550           3839         3/24/98         376						
3827         3/24/98         27         RTA00000527F.p.02.1         M00004029B:A01         36844           3828         3/24/98         297         RTA00000525F.c.11.1         M00004039C:E02         37895           3829         3/24/98         17         RTA00000527F.p.06.1         M00004029B:G10         1292           3830         3/24/98         310         RTA00000527F.p.08.1         M00004029C:F02         36013           3831         3/24/98         478         RTA00000527F.p.09.1         M00004029C:F05         7694           3832         3/24/98         253         RTA00000426F.m.08.1         M00004030B:A12         63781           3833         3/24/98         414         RTA00000426F.m.12.1         M00004030B:D08         63740           3834         3/24/98         345         RTA00000426F.n.23.1         M00004030C:A08         18176           3835         3/24/98         98         RTA00000527F.p.16.1         M00004030C:C02         23798           3836         3/24/98         115         RTA00000525F.b.05.1         M00004035B:F05         21116           3837         3/24/98         158         RTA00000525F.b.09.1         M00004036A:A11         66550           3839         3/24/98         376						
3828         3/24/98         297         RTA00000525F.c.11.1         M00004039C:E02         37895           3829         3/24/98         17         RTA00000527F.p.06.1         M00004029B:G10         1292           3830         3/24/98         310         RTA00000527F.p.08.1         M00004029C:F02         36013           3831         3/24/98         478         RTA00000527F.p.09.1         M00004029C:F05         7694           3832         3/24/98         253         RTA00000426F.m.08.1         M00004030B:A12         63781           3833         3/24/98         414         RTA00000426F.m.12.1         M00004030B:D08         63740           3834         3/24/98         345         RTA00000426F.n.23.1         M00004030C:A08         18176           3835         3/24/98         98         RTA00000527F.p.16.1         M00004030C:C02         23798           3836         3/24/98         115         RTA00000525F.b.05.1         M00004034C:F05         21116           3837         3/24/98         444         RTA00000525F.b.09.1         M00004036A:A11         66550           3839         3/24/98         376         RTA00000525F.b.21.1         M00004037C:D04         9486           3840         3/24/98         293						
3829         3/24/98         17         RTA00000527F.p.06.1         M00004029B:G10         1292           3830         3/24/98         310         RTA00000527F.p.08.1         M00004029C:F02         36013           3831         3/24/98         478         RTA00000527F.p.09.1         M00004029C:F05         7694           3832         3/24/98         253         RTA00000426F.m.08.1         M00004030B:A12         63781           3833         3/24/98         414         RTA00000426F.m.12.1         M00004030B:D08         63740           3834         3/24/98         345         RTA00000426F.n.23.1         M00004030C:A08         18176           3835         3/24/98         98         RTA00000527F.p.16.1         M00004030C:C02         23798           3836         3/24/98         115         RTA00000525F.b.05.1         M00004034C:F05         21116           3837         3/24/98         444         RTA00000525F.b.09.1         M00004035B:F05         23472           3838         3/24/98         158         RTA00000525F.b.21.1         M00004037C:D04         9486           3840         3/24/98         293         RTA00000525F.c.02.1         M00004038A:E05         14618				•		
3830         3/24/98         310         RTA00000527F.p.08.1         M00004029C:F02         36013           3831         3/24/98         478         RTA00000527F.p.09.1         M00004029C:F05         7694           3832         3/24/98         253         RTA00000426F.m.08.1         M00004030B:A12         63781           3833         3/24/98         414         RTA00000426F.m.12.1         M00004030B:D08         63740           3834         3/24/98         345         RTA00000426F.n.23.1         M00004030C:A08         18176           3835         3/24/98         98         RTA00000527F.p.16.1         M00004030C:C02         23798           3836         3/24/98         115         RTA00000525F.b.05.1         M00004034C:F05         21116           3837         3/24/98         444         RTA00000525F.b.09.1         M00004035B:F05         23472           3838         3/24/98         158         RTA00000427F.a.06.1         M00004036A:A11         66550           3839         3/24/98         376         RTA00000525F.b.21.1         M00004037C:D04         9486           3840         3/24/98         293         RTA00000525F.c.02.1         M00004038A:E05         14618						
3831         3/24/98         478         RTA00000527F.p.09.1         M00004029C:F05         7694           3832         3/24/98         253         RTA00000426F.m.08.1         M00004030B:A12         63781           3833         3/24/98         414         RTA00000426F.m.12.1         M00004030B:D08         63740           3834         3/24/98         345         RTA00000426F.n.23.1         M00004030C:A08         18176           3835         3/24/98         98         RTA00000527F.p.16.1         M00004030C:C02         23798           3836         3/24/98         115         RTA00000525F.b.05.1         M00004034C:F05         21116           3837         3/24/98         444         RTA00000525F.b.09.1         M00004035B:F05         23472           3838         3/24/98         158         RTA00000427F.a.06.1         M00004036A:A11         66550           3839         3/24/98         376         RTA00000525F.b.21.1         M00004037C:D04         9486           3840         3/24/98         293         RTA00000525F.c.02.1         M00004038A:E05         14618						
3832         3/24/98         253         RTA00000426F.m.08.1         M00004030B:A12         63781           3833         3/24/98         414         RTA00000426F.m.12.1         M00004030B:D08         63740           3834         3/24/98         345         RTA00000426F.n.23.1         M00004030C:A08         18176           3835         3/24/98         98         RTA00000527F.p.16.1         M00004030C:C02         23798           3836         3/24/98         115         RTA00000525F.b.05.1         M00004034C:F05         21116           3837         3/24/98         444         RTA00000525F.b.09.1         M00004035B:F05         23472           3838         3/24/98         158         RTA00000427F.a.06.1         M00004036A:A11         66550           3839         3/24/98         376         RTA00000525F.b.21.1         M00004037C:D04         9486           3840         3/24/98         293         RTA00000525F.c.02.1         M00004038A:E05         14618				•		
3833         3/24/98         414         RTA00000426F.m.12.1         M00004030B:D08         63740           3834         3/24/98         345         RTA00000426F.n.23.1         M00004030C:A08         18176           3835         3/24/98         98         RTA00000527F.p.16.1         M00004030C:C02         23798           3836         3/24/98         115         RTA00000525F.b.05.1         M00004034C:F05         21116           3837         3/24/98         444         RTA00000525F.b.09.1         M00004035B:F05         23472           3838         3/24/98         158         RTA00000427F.a.06.1         M00004036A:A11         66550           3839         3/24/98         376         RTA00000525F.b.21.1         M00004037C:D04         9486           3840         3/24/98         293         RTA00000525F.c.02.1         M00004038A:E05         14618				•		
3834       3/24/98       345       RTA00000426F.n.23.1       M00004030C:A08       18176         3835       3/24/98       98       RTA00000527F.p.16.1       M00004030C:C02       23798         3836       3/24/98       115       RTA00000525F.b.05.1       M00004034C:F05       21116         3837       3/24/98       444       RTA00000525F.b.09.1       M00004035B:F05       23472         3838       3/24/98       158       RTA00000427F.a.06.1       M00004036A:A11       66550         3839       3/24/98       376       RTA00000525F.b.21.1       M00004037C:D04       9486         3840       3/24/98       293       RTA00000525F.c.02.1       M00004038A:E05       14618						
3835       3/24/98       98       RTA00000527F.p.16.1       M00004030C:C02       23798         3836       3/24/98       115       RTA00000525F.b.05.1       M00004034C:F05       21116         3837       3/24/98       444       RTA00000525F.b.09.1       M00004035B:F05       23472         3838       3/24/98       158       RTA00000427F.a.06.1       M00004036A:A11       66550         3839       3/24/98       376       RTA00000525F.b.21.1       M00004037C:D04       9486         3840       3/24/98       293       RTA00000525F.c.02.1       M00004038A:E05       14618						
3836       3/24/98       115       RTA00000525F.b.05.1       M00004034C:F05       21116         3837       3/24/98       444       RTA00000525F.b.09.1       M00004035B:F05       23472         3838       3/24/98       158       RTA00000427F.a.06.1       M00004036A:A11       66550         3839       3/24/98       376       RTA00000525F.b.21.1       M00004037C:D04       9486         3840       3/24/98       293       RTA00000525F.c.02.1       M00004038A:E05       14618						
3837       3/24/98       444       RTA00000525F.b.09.1       M00004035B:F05       23472         3838       3/24/98       158       RTA00000427F.a.06.1       M00004036A:A11       66550         3839       3/24/98       376       RTA00000525F.b.21.1       M00004037C:D04       9486         3840       3/24/98       293       RTA00000525F.c.02.1       M00004038A:E05       14618				•		
3838       3/24/98       158       RTA00000427F.a.06.1       M00004036A:A11       66550         3839       3/24/98       376       RTA00000525F.b.21.1       M00004037C:D04       9486         3840       3/24/98       293       RTA00000525F.c.02.1       M00004038A:E05       14618						
3839       3/24/98       376       RTA00000525F.b.21.1       M00004037C:D04       9486         3840       3/24/98       293       RTA00000525F.c.02.1       M00004038A:E05       14618						
3840 3/24/98 293 RTA00000525F.c.02.1 M00004038A:E05 14618						
3841 3/24/98 138 RTA00000527F.c.22.1 M00003822B:G12 37496						
	3841	3/24/98	138	KTA0000052/F.c.22.1	M00003822B:G12	<i>3</i> /496

SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
3842	3/24/98	30	PT 4 00000426E 07 1	14000040004	
3843	3/24/98	322	RTA00000426F.m.07.1 RTA00000523F.i.17.1	M00004028A:G03	63504
3844	3/24/98	311		M00003856B:A12	65779
3845	3/24/98	233	RTA00000428F.b.02.1	M00005214D:D10	0
3846	3/24/98	233 274	RTA00000426F.f.13.1	M00003851A:A06	65384
3847	3/24/98	407	RTA00000523F.h.06.1	M00003851B:D03	28745
3848	3/24/98	82	RTA00000523F.h.08.1	M00003851B:E01	62893
3849	3/24/98	316	RTA00000523F.h.15.1	M00003851C:F09	65137
3850	3/24/98	232	RTA00000523F.h.16.1	M00003851D:H11	66031
3851	3/24/98	451	RTA00000527F.i.13.2	M00003852B:G04	2924
3852	3/24/98	249	RTA00000527F.i.15.2	M00003852C:F07	14235
3853	3/24/98	72	RTA00000523F.h.21.1	M00003853B:C10	41440
3854	3/24/98	60	RTA00000426F.f.19.1	M00003854C:C09	66701
3855	3/24/98	91	RTA00000523F.i.06.1	M00003855A:A01	66341
3856	3/24/98	137	RTA00000527F.i.21.2	M00003855A:F01	37490
3857	3/24/98	433	RTA00000527F.h.17.1	M00003848D:G02	37799
3858	3/24/98	157	RTA00000527F.j.04.2	M00003856A:G04	11809
3859	3/24/98	75	RTA00000523F.g.10.1	M00003848B:E07	40694
3860	3/24/98	481	RTA00000523F.i.22.1	M00003857A:E12	64688
3861	3/24/98	377	RTA00000523F.j.02.1	M00003857A:H10	62853
3862	3/24/98	286	RTA00000527F.j.12.2 RTA00000426F.g.19.1	M00003857C:E05	37503
3863	3/24/98	71		M00003858B:G02	63672
3864	3/24/98	205	RTA00000527F.j.20.2	M00003860D:E06	37603
3865	3/24/98	40	RTA00000426F.h.12.1 RTA00000426F.h.23.1	M00003905C:F12	78093
3866	3/24/98	369	RTA00000426F.n.23.1 RTA00000524F.c.08.1	M00003911A:D12	75964
3867	3/24/98	234	RTA00000524F.c.16.1	M00005217C:C01	0
3868	3/24/98	8	RTA00000324F.C.16.1 RTA00000428F.b.06.1	M00005218D:G10	0
3869	3/24/98	193	RTA00000428F.b.106.1	M00005228A:A09	0
3870	3/24/98	419	RTA00000428F.b.12.1 RTA00000428F.b.22.1	M00005231C:B07	0
3871	2/24/98	486	RTA00000428F.b.22.1 RTA00000346F.l.13.1	M00005231D:B09	0
3872	3/24/98	421	RTA00000540F.J.15.1 RTA00000523F.i.10.1	M00003980B:C11 M00003855B:B09	7542
3873	3/24/98	10	RTA00000527F.f.12.1	M00003833B:B09	64876
3874	3/24/98	145	RTA00000327F.1.12.1 RTA00000426F.m.24.1	M00003829D:D12	5945
3875	3/24/98	39	RTA000004201.iii.24.1 RTA00000527F.c.23.1	M00003981A:A07 M00003822C:A07	63943
3876	3/24/98	35	RTA000003271.c.23.1	M00003822C:A07 M00003823C:B01	37742
3877	3/24/98	385	RTA00000426F.f.12.1	M00003823C:B01 M00003823C:C04	63102
3878	3/24/98	2	RTA00000523F.d.19.1	M00003823C:C04	19096
3879	3/24/98	225	RTA00000527F.d.09.1	M00003824A:A06 M00003824A:G11	26489
3880	3/24/98	359	RTA00000527F.d.05.1	M00003824A.G11 M00003824B:C09	10848
3881	3/24/98	330	RTA00000523F.d.23.1	M00003824B.C09	33424
3882	3/24/98	254	RTA00000523F.d.24.1	M00003824C:A10	63633
3883	3/24/98	74	RTA00000527F.d.19.1	M00003824D.D08 M00003825B:F10	64799
3884	3/24/98	67	RTA00000527F.e.03.1	M00003825B:F10 M00003825D:F01	486
3885	3/24/98	352	RTA00000527F.e.13.1	M00003825D:F01	25560 37588
3886	3/24/98	185	RTA00000527F.h.21.1	M00003820C:103	
3887	3/24/98	338	RTA00000523F.e.15.1	M00003830C:G09 M00003829C:E08	37630 7919
3888	3/24/98	284	RTA00000524F.b.19.1	M00005829C.E08 M00005216B:D02	7919 0
3889	3/24/98	242	RTA00000523F.e.20.1	M00003210B:D02 M00003829D:F03	65164
3890	3/24/98	301	RTA00000527F.f.18.1	M00003829D:P03 M00003830D:B11	37577
3891	3/24/98	259	RTA00000528F.m.04.1	M00003830D:H11	10815
			21.0		10012

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appin	Appln			
3892	3/24/98	160	RTA00000523F.f.06.1	M00003833D:H08	62871
3893	3/24/98	166	RTA00000523F.f.07.1	M00003833D:H10	62799
3894	3/24/98	196	RTA00000523F.f.12.1	M00003840A:C10	63751
3895	3/24/98	447	RTA00000523F.f.19.1	M00003840B:F05	34169
3896	3/24/98	113	RTA00000527F.g.07.1	M00003840C:C02	37488
3897	3/24/98	45	RTA00000528F.m.12.1	M00003842D:F08	5768
3898	3/24/98	415	RTA00000527F.g.12.1	M00003845C:D04	37746
3899	3/24/98	1	RTA00000527F.g.13.1	M00003845D:A04	36035
3900	3/24/98	450	RTA00000527F.g.21.1	M00003846B:C05	36028
3901	3/24/98	144	RTA00000527F.g.23.1	M00003846C:F08	37538
3902	3/24/98	422	RTA00000527F.f.03.1	M00003829A:B08	17788
3903	3/24/98	176	RTA00000522F.g.15.1	M00001595B:G07	76536
3904	3/24/98	264	RTA00000425F.e.09.1	M00001608C:G04	75550
3905	3/24/98	32	RTA00000424F.n.14.1	M00001584D:C11	73008
3906	3/24/98	459	RTA00000425F.c.03.1	M00001585D:B12	74643
3907	3/24/98	124	RTA00000424F.m.12.1	M00001586C:H07	77675
3908	3/24/98	314	RTA00000522F.e.09.1	M00001589D:A01	32599
3909	3/24/98	262	RTA00000424F.k.03.1	M00001590D:B04	21289
3910	3/24/98	106	RTA00000424F.j.14.1	M00001592B:B02	74311
3911	3/24/98	424	RTA00000424F.k.10.1	M00001592D:H02	73232
3912	3/24/98	168	RTA00000424F.j.12.1	M00001594C:E05	73827
3913	3/24/98	420	RTA00000424F.j.13.1	M00001594C:H03	74485
3914	3/24/98	210	RTA00000522F.g.06.1	M00001594D:G11	78221
3915	3/24/98	439	RTA00000522F.g.10.1	M00001595A:C07	74294
3916	3/24/98	300	RTA00000424F.m.08.1	M00001584A:A07	19402
3917	3/24/98	355	RTA00000522F.g.12.1	M00001595A:E07	78783
3918	3/24/98	411	RTA00000424F.n.12.1	M00001582C:G02	41589
3919	3/24/98	238	RTA00000522F.g.17.1	M00001595B:G10	76486
3920	3/24/98	472	RTA00000522F.g.18.1	M00001595B:H11	73226
3921	3/24/98	102	RTA00000522F.g.19.1	M00001595C:A01	78119
3922	3/24/98	280	RTA00000522F.g.20.1	M00001595C:A05	77688
3923	3/24/98	191	RTA00000522F.g.22.1	M00001595C:B12	77504
3924	3/24/98	163	RTA00000522F.h.01.1	M00001595C:E05	75010
3925	3/24/98	438	RTA00000522F.h.02.1	M00001595C:E09	74947
3926	3/24/98	257	RTA00000522F.h.07.1	M00001595D:C11	75149
3927	3/24/98	389	RTA00000424F.i.15.1	M00001596A:A02	78043
3928	3/24/98	167	RTA00000424F.i.20.1	M00001596A:D01	44010
3929	3/24/98	374	RTA00000528F.f.10.1	M00001596C:G05	3600
3930	3/24/98	215	RTA00000425F.f.02.1	M00001607A:A01	76982
3931	3/24/98	22	RTA00000527F.k.15.1	M00003982A:G03 M00001595A:D12	22688
3932	3/24/98	378	RTA00000522F.g.11.1	M00001595A.D12 M00001570C:B02	75432 75691
3933	3/24/98	63	RTA00000522F.b.01.1	M00001370C:B02	74928
3934	3/24/98	430	RTA00000424F.g.08.1	M00001485C:D07	77552
3935	3/24/98	340	RTA00000424F.h.06.1 RTA00000424F.h.10.1	M00001485C:G06	77332 72925
3936	3/24/98	161		M00001485D:A05	41569
3937	3/24/98	368 455	RTA00000424F.i.11.1 RTA00000424F.g.24.1	M00001487C:A11	79156
3938 3939	3/24/98	455 211	RTA00000424F.g.24.1 RTA00000424F.h.03.1	M00001487C:G09	74447
3939 3940	3/24/98 3/24/98	174	RTA00000424F.h.03.1 RTA00000424F.b.21.4	M00001487C:G09	24686
3940 3941	3/24/98 3/24/98	383	RTA00000424F.b.23.4	M00001530A:B02	77322
J 74 I	3124170	202	K1/A000007241.0,23.4	COLUMNACALOGOGGA	11222

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
20.42	Appln	Appln			
3942	3/24/98	179	RTA00000424F.d.10.3	M00001530D:A11	73110
3943	3/24/98	393	RTA00000424F.b.15.4	M00001539B:B10	74958
3944	3/24/98	347	RTA00000522F.a.05.1	M00001567A:C04	32611
3945	3/24/98	303	RTA00000522F.a.06.1	M00001567A:C11	73662
3946	3/24/98	229	RTA00000424F.n.13.1	M00001584D:B06	74942
3947	3/24/98	392	RTA00000522F.a.20.1	M00001567C:E07	74070
3948	3/24/98	226	RTA00000425F.e.15.1	M00001608D:F11	75921
3949	3/24/98	285	RTA00000522F.b.07.1	M00001570D:E05	78634
3950	3/24/98	465	RTA00000528F.d.04.1	M00001570D:E07	2395
3951	3/24/98	404	RTA00000522F.b.18.1	M00001573B:A06	3460
3952	3/24/98	9	RTA00000522F.b.22.1	M00001573B:H12	75181
3953	3/24/98	109	RTA00000424F.a.01.4	M00001575A:D05	43214
3953	3/24/98	125	RTA00000424F.a.01.1	M00001575A:D05	43214
3954	3/24/98	125	RTA00000424F.a.01.1	M00001575A:D05	43214
3954	3/24/98	109	RTA00000424F.a.01.4	M00001575A:D05	43214
3955	3/24/98	294	RTA00000424F.a.05.1	M00001575B:C01	77976
3955	3/24/98	292	RTA00000424F.a.05.4	M00001575B:C01	77976
3956	3/24/98	292	RTA00000424F.a.05.4	M00001575B:C01	77976
3956	3/24/98	294	RTA00000424F.a.05.1	M00001575B:C01	77976
3957	3/24/98	434	RTA00000522F.c.11.1	M00001576C:H02	31064
3958	3/24/98	299	RTA00000522F.c.14.1	M00001577A:A03	75449
3959	3/24/98	110	RTA00000522F.d.08.1	M00001578B:A06	74284
3960	3/24/98	306	RTA00000522F.d.23.1	M00001579D:F02	73868
3961	3/24/98	350	RTA00000424F.n.11.1	M00001582C:C04	73874
3962	3/24/98	366	RTA00000522F.a.17.1	M00001567C:B08	79032
3963	3/24/98	239	RTA00000523F.j.17.1	M00003966B:A04	63610
3964	3/24/98	405	RTA00000425F.e.07.1	M00001608C:D02	75992
3965	3/24/98	231	RTA00000426F.e.17.1	M00003810C:B06	64089
3966	3/24/98	104	RTA00000527F.b.18.1	M00003810D:H09	37469
3967	3/24/98	312	RTA00000426F.f.17.1	M00003811C:C02	66334
3968	3/24/98	266	RTA00000426F.f.16.1	M00003813B:F02	65613
3969	3/24/98	183	RTA00000527F.c.04.1	M00003813C:H08	23090
3970	3/24/98	435	RTA00000523F.c.13.1	M00003813D:B12	40668
3971	3/24/98	255	RTA00000523F.c.14.1	M00003813D:C02	66015
3972	3/24/98	131	RTA00000523F.c.15.1	M00003813D:G06	36935
3973	3/24/98	270	RTA00000426F.g.16.1	M00003814B:C01	41446
3974	3/24/98	95	RTA00000523F.c.18.1	M00003817C:A10	66179
3975	3/24/98	329	RTA00000527F.c.09.1	M00003817C:G06	64859
3976	3/24/98	65	RTA00000523F.c.01.1	M00003810A:A02	65710
3977	3/24/98	398	RTA00000527F.c.16.1	M00003821A:H09	22908
3978	3/24/98	96	RTA00000523F.b.13.1	M00003809B:A03	66330
3979	3/24/98	313	RTA00000523F.j.21.1	M00003966C:A12	36925
3980	3/24/98	86	RTA00000523F.k.01.1	M00003966C:F03	41437
3981	3/24/98	26	RTA00000427F.b.23.1	M00003973D:F08	64297
3982	3/24/98	277	RTA00000427F.e.08.1	M00003974D:E01	47387
3983	3/24/98	397	RTA00000427F.e.10.1	M00003974D:H07	64599
3984	3/24/98	31	RTA00000427F.c.10.1	M00003976B:E06	65478
3985	3/24/98	151	RTA00000427F.c.12.1	M00003976B:H07	66995
3986	3/24/98	57	RTA00000427F.c.20.1	M00003978A:E01	26527
3987	3/24/98	213	RTA00000427F.c.22.1	M00003978A:E09	63990
			220		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
3988	3/24/98	289	RTA00000427F.d.10.1	M00003978C:A12	40685
3989	3/24/98	28	RTA00000427F.d.08.1	M00003980C:E12	63967
3990	3/24/98	335	RTA00000427F.d.09.1	M00003980C:F12	66486
3991	3/24/98	267	RTA00000425F.i.21.1	M00001635B:B02	75305
3992	3/24/98	343	RTA00000527F.c.11.1	M00003817D:D12	37484
3993	3/24/98	251	RTA00000425F.f.24.1	M00001656D:C04	40841
3994	3/24/98	155	RTA00000424F.I.19.1	M00001609C:A12	75454
3995	3/24/98	321	RTA00000424F.m.04.1	M00001609C:G05	79017
3996	3/24/98	214	RTA00000424F.k.12.1	M00001610C:B07	77666
3997	3/24/98	446	RTA00000425F.f.20.1	M00001653D:H07	74071
3998	3/24/98	428	RTA00000522F.I.08.1	M00001654A:E08	78781
3999	3/24/98	295	RTA00000522F.I.15.1	M00001654B:A01	74691
4000	3/24/98	275	RTA00000522F.1.22.1	M00001654C:D10	75801
4001	3/24/98	223	RTA00000522F.m.02.1	M00001654C:G07	76834
4002	3/24/98	391	RTA00000522F.m.03.1	M00001654C:G09	79194
4003	3/24/98	346	RTA00000522F.m.19.1	M00001655C:C07	41544
4004	3/24/98	51	RTA00000522F.n.02.1	M00001655D:E08	74959
4005	3/24/98	94	RTA00000522F.n.05.1	M00001655D:H11	73260
4006	3/24/98	332	RTA00000523F.c.03.1	M00003810B:B11	36913
4007	3/24/98	172	RTA00000425F.f.11.1	M00001656C:C04	79275
4008	3/24/98	58	RTA00000527F.k.06.1	M00003981B:B12	12469
4009	3/24/98	240	RTA00000522F.n.14.1	M00001657C:C11	73410
4010	3/24/98	56	RTA00000522F.n.16.1	M00001657D:A10	26769
4011	3/24/98	20	RTA00000522F.o.06.1	M00001659D:A09	26860
4012	3/24/98	38	RTA00000528F.i.22.1	M00001661D:D05	2478
4013	3/24/98	413	RTA00000425F.i.10.1	M00001664B:E08	78736
4014	3/24/98	412	RTA00000425F.i.11.1	M00001664B:F06	21716
4015	3/24/98	202	RTA00000528F.j.11.1	M00001669B:C12	1070
4016	3/24/98	432	RTA00000522F.o.20.1	M00001669C:B09	74853
4017	3/24/98	245	RTA00000522F.p.09.1	M00001670A:F09	75204
4018	3/24/98	331	RTA00000528F.k.10.1	M00001678C:F09	1981
4019	3/24/98	356	RTA00000523F.a.07.1	M00001693A:H06	75804
4020	3/24/98	200	RTA00000527F.a.13.1	M00003805D:E06	37740
4021	3/24/98	14	RTA00000523F.b.02.1	M00003806C:A06	65163
4022	3/24/98	177	RTA00000522F.n.12.1	M00001656A:H12	74117
4023	2/24/98	1158	RTA00000405F.o.03.1	M00003829C:H05	37575
4024	2/24/98	1181	RTA00000346F.f.14.1	M00003800B:F03	16998
4025	2/24/98	610	RTA00000419F.d.07.1	M00003820B:D10	21421
4026	2/24/98	1227	RTA00000411F.g.05.1	M00003822D:B10	64664
4027	2/24/98	412	RTA00000411F.g.06.1	M00003822D:C06	66065
4028	2/24/98	21	RTA00000411F.g.08.1	M00003822D:D04	45815
4029	2/24/98	1208	RTA00000347F.e.24.1	M00003823B:F07	8188
4030	2/24/98	502	RTA00000341F.d.08.1	M00003824C:D07	0
4031	2/24/98	528	RTA00000405F.n.16.1	M00003825B:B10	21503
4032	2/24/98	15	RTA00000419F.c.19.1	M00003820A:A08	64346
4033	2/24/98	637	RTA00000419F.d.14.1	M00003828A:D05	64945
4034	2/24/98	81	RTA00000419F.c.16.1	M00003819D:B01	65254
4035	2/24/98	754	RTA00000419F.e.02.1	M00003830C:A03	65010
4036	2/24/98	430	RTA00000419F.e.04.1	M00003831C:G05	62963
4037	2/24/98	541	RTA00000411F.h.15.1	M00003832A:A09	65160

SEQ ID NO:	Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
4038	<b>Appl</b> n 2/24/98	Appln 1079	DTA 00000410F 101	140000000000000000000000000000000000000	
4038	2/24/98		RTA00000419F.e.10.1	M00003833B:B03	63225
4040		577	RTA00000419F.e.11.1	M00003833B:C12	36780
4040 4041	2/24/98	1220	RTA00000419F.e.23.1	M00003834B:G04	65772
4041	2/24/98	691	RTA00000354R.n.08.1	M00003835A:A09	8802
	2/24/98	536	RTA00000411F.i.02.1	M00003835B:H11	66975
4043	2/24/98	421	RTA00000419F.f.10.1	M00003835D:G06	66193
4044	2/24/98	1150	RTA00000411F.g.24.1	M00003825B:B11	65233
4045	2/24/98	533	RTA00000423F.e.11.1	M00003809B:E10	2566
4046	2/24/98	520	RTA00000406F.c.20.1	M00003871D:G06	38578
4047	2/24/98	41	RTA00000419F.b.12.1	M00003806B:C09	63148
4048	2/24/98	917	RTA00000423F.e.21.1	M00003806B:G05	66961
4049	2/24/98	326	RTA00000419F.b.15.1	M00003806D:D11	43969
4050	2/24/98	297	RTA00000419F.b.18.1	M00003808D:D08	67034
4051	2/24/98	139	RTA00000419F.b.19.1	M00003809A:C01	65534
4052	2/24/98	1021	RTA00000419F.b.21.1	M00003809A:F01	65366
4053	2/24/98	1152	RTA00000405F.m.07.1	M00003809B:B02	37733
4054	2/24/98	310	RTA00000419F.d.06.1	M00003820B:D07	65496
4055	2/24/98	120	RTA00000401F.m.02.1	M00003907A:F01	1573
4056	2/24/98	69	RTA00000405F.o.18.1	M00003839A:D07	11016
4057	2/24/98	482	RTA00000411F.e.24.1	M00003813A:B02	64781
4058	2/24/98	50	RTA00000411F.f.02.1	M00003813A:D08	63386
4059	2/24/98	602	RTA00000411F.f.06.1	M00003813B:E09	64186
4060	2/24/98	761	RTA00000411F.f.14.1	M00003814B:C12	62984
4061	2/24/98	674	RTA00000411F.f.17.1	M00003814B:F12	65661
4062	2/24/98	1164	RTA00000405F.m.21.1	M00003815C:C06	24218
4063	2/24/98	951	RTA00000419F.c.04.1	M00003815C:D12	63749
4064	2/24/98	471	RTA00000419F.c.11.1	M00003817B:C04	65504
4065	2/24/98	1047	RTA00000419F.c.14.1	M00003819B:G01	65727
4066	2/24/98	1178	RTA00000400F.f.11.1	M00001636A:E07	4088
4067	2/24/98	89	RTA00000406F.c.08.1	M00003870C:A10	22387
4068	2/24/98	94	RTA00000406F.a.23.1	M00003867B:D10	38712
4069	2/24/98	1038	RTA00000406F.b.01.1	M00003867B:G07	39006
4070	2/24/98	783	RTA00000406F.b.02.1	M00003867B:G08	38744
4071	2/24/98	563	RTA00000406F.b.08.1	M00003867D:A06	18258
4072	2/24/98	1072	RTA00000419F.j.03.1	M00003868B:G06	77578
4073	2/24/98	846	RTA00000419F.j.11.1	M00003868C:C07	73183
4074	2/24/98	17	RTA00000411F.m.15.1	M00003868D:B09	78014
4075	2/24/98	589	RTA00000411F.m.18.1	M00003868D:D09	75629
4076	2/24/98	971	RTA00000411F.i.11.1	M00003837C:E05	66849
4077	2/24/98	794	RTA00000406F.c.06.1	M00003870C:A01	37924
4078	2/24/98	788	RTA00000419F.i.04.1	M00003860B:F11	65791
4079	2/24/98	883	RTA00000406F.c.09.1	M00003870C:E10	5671
4080	2/24/98	918	RTA00000419F.j.22.1	M00003871A:A02	73525
4081	2/24/98	757	RTA00000423F.h.13.1	M00003871A:B09	14398
4082	2/24/98	208	RTA00000419F.j.23.1	M00003871A:C11	74470
4083	2/24/98	1127	RTA00000401F.g.22.1	M00003871A:G19	1147
4084	2/24/98	1205	RTA00000419F.k.05.1	M00003871A:G09	1147
4085	2/24/98	522	RTA00000406F.c.18.1	M00003871C:E04	14368
4086	2/24/98	459	RTA00000419F.k.06.1	M00003871C:F12	
4087	2/24/98	965	RTA00000411F.n.06.1	M00003871D:E11	78493 73886
	_			141000030/1D.DH	73886

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
4088	2/24/98	457	RTA00000411F.m.19.1	M00003868D:D11	74924
4089	2/24/98	145	RTA00000419F.g.12.1	M00003842C:G03	66171
4090	2/24/98	633	RTA00000341F.d.02.1	M00003797A:G03	4706
4091	2/24/98	1026	RTA00000419F.f.18.1	M00003839D:E11	64047
4092	2/24/98	524	RTA00000419F.f.23.1	M00003840D:H10	65002
4093	2/24/98	204	RTA00000351R.k.19.1	M00003841B:E03	936
4094	2/24/98	968	RTA00000419F.f.24.1	M00003841B:E06	18717
4095	2/24/98	209	RTA00000411F.j.02.1	M00003841C:D07	65310
4096	2/24/98	1118	RTA00000411F.j.03.1	M00003841C:F01	66263
4097	2/24/98	470	RTA00000411F.j.06.1	M00003841C:H08	63545
4098	2/24/98	1153	RTA00000411F.j.07.1	M00003841C:H11	66963
4099	1/28/98	412	RTA00000195AF.c.24.1	M00003860D:H07	0
4099	2/24/98	678	RTA00000195AF.c.24.1	M00003860D:H07	0
4100	2/24/98	777	RTA00000419F.g.02.1	M00003842A:A03	62839
4101	2/24/98	678	RTA00000195AF.c.24.1	M00003860D:H07	0
4101	1/28/98	412	RTA00000195AF.c.24.1	M00003860D:H07	0
4102	2/24/98	799	RTA00000411F.j.15.1	M00003843A:E04	66871
4103	2/24/98	932	RTA00000405F.p.03.1	M00003844A:A11	11346
4104	2/24/98	266	RTA00000419F.g.15.1	M00003844D:A07	32519
4105	2/24/98	547	RTA00000419F.h.02.1	M00003845D:G08	63985
4106	2/24/98	290	RTA00000411F.k.16.1	M00003852C:B06	64759
4107	2/24/98	23	RTA00000411F.k.20.1	M00003854B:A07	64973
4108	2/24/98	1138	RTA00000411F.k.21.1	M00003854B:D04	65349
4109	2/24/98	1000	RTA00000351R.j.21.1	M00003859D:C05	31604
4110	2/24/98	980	RTA00000411F.i.13.1	M00003837C:F10	66138
4111	2/24/98	112	RTA00000422F.c.11.1	M00003841D:A04	2643
4112	2/24/98	905	RTA00000405F.g.21.2	M00001673B:F07	38966
4112	2/24/98	906	RTA00000405F.g.21.1	M00001673B:F07	38966
4113	2/24/98	294	RTA00000405F.I.17.1	M00003805A:F02	17225
4114	2/24/98	105	RTA00000346F.d.08.1	M00001671A:A10	39955
4115	2/24/98	1190	RTA00000405F.g.02.2	M00001671B:G05	10567
4116	2/24/98	280	RTA00000418F.p.15.1	M00001671C:C11	31066
4117	2/24/98	1151	RTA00000405F.g.18.2	M00001672D:E08	5255
4118	2/24/98	66	RTA00000405F.g.19.2	M00001673A:G08	37150
4119	2/24/98	1239	RTA00000340F.o.22.1	M00001673B:B07	7356
4120	2/24/98	906	RTA00000405F.g.21.1	M00001673B:F07	38966
4120	2/24/98	905	RTA00000405F.g.21.2	M00001673B:F07	38966
4121	2/24/98	893	RTA00000418F.p.10.1	M00001669D:F05	75323
4122	2/24/98	906	RTA00000405F.g.21.1	M00001673B:F07	38966
4122	2/24/98	905	RTA00000405F.g.21.2	M00001673B:F07	38966
4123	2/24/98	808	RTA00000418F.p.08.1	M00001669D:D06	73983
4124	2/24/98	469	RTA00000405F.g.24.1	M00001673D:D06	39076
4125	2/24/98	1094	RTA00000405F.h.03.2	M00001673D:F10	20633
4126	2/24/98	803	RTA00000405F.h.05.2	M00001674A:G07	75706
4127	2/24/98	667	RTA00000405F.h.07.2	M00001674A:G11	4984
4128	2/24/98	276	RTA00000423F.a.18.1	M00001675A:G10	26761
4129	2/24/98	1050	RTA00000405F.f.05.2	M00001669C:D09	14359
4129	2/24/98	1049	RTA00000405F.f.05.1	M00001669C:D09	14359
4130	2/24/98	1050	RTA00000405F.f.05.2	M00001669C:D09	14359
4130	2/24/98	1049	RTA00000405F.f.05.1	M00001669C:D09	14359

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
4131	2/24/98	104	RTA00000421F.n.03.1	M00001675C:A04	1638
4132	2/24/98	388	RTA00000411F.a.07.1	M00001675C:C03	74547
4133	2/24/98	906	RTA00000405F.g.21.1	M00001673B:F07	38966
4133	2/24/98	905	RTA00000405F.g.21.2	M00001673B:F07	38966
4134	2/24/98	222	RTA00000405F.e.09.1	M00001663C:F12	38978
4135	2/24/98	518	RTA00000410F.m.18.1	M00001660B:A09	76365
4136	2/24/98	218	RTA00000346F.e.13.1	M00001660B:D03	74653
4137	2/24/98	427	RTA00000410F.m.20.1	M00001660B:E03	74285
4138	2/24/98	1099	RTA00000400F.m.16.1	M00001660B:E04	3307
4139	2/24/98	775	RTA00000405F.c.22.1	M00001660C:B06	39053
4140	2/24/98	28	RTA00000422F.p.06.2	M00001661A:B11	39282
4141	2/24/98	108	RTA00000418F.o.18.1	M00001661B:F06	78676
4142	2/24/98	954	RTA00000410F.n.05.1	M00001662A:C07	77830
4143	2/24/98	1182	RTA00000346F.d.21.1	M00001670B:G12	6641
4144	2/24/98	1043	RTA00000423F.b.17.1	M00001662B:F06	8200
4145	2/24/98	447	RTA00000423F.b.04.3	M00001675D:E10	6311
4146	2/24/98	305	RTA00000418F.p.06.1	M00001664A:F08	32628
4147	2/24/98	1116	RTA00000410F.o.04.1	M00001664D:F04	79018
4148	2/24/98	320	RTA00000422F.p.07.2	M00001661A:E06	39024
4149	2/24/98	197	RTA00000410F.o.05.1	M00001669A:B02	75262
4150	2/24/98	738	RTA00000422F.n.20.1	M00001669B:B12	38676
4151	2/24/98	495	RTA00000400F.o.21.1	M00001669C:C08	16259
4152	2/24/98	1050	RTA00000405F.f.05.2	M00001669C:D09	14359
4152	2/24/98	1049	RTA00000405F.f.05.1	M00001669C:D09	14359
4153	2/24/98	1049	RTA00000405F.f.05.1	M00001669C:D09	14359
4153	2/24/98	1050	RTA00000405F.f.05.2	M00001669C:D09	14359
4154	2/24/98	492	RTA00000340F.o.18.1	M00001669D:C03	4261
4155	2/24/98	61	RTA00000410F.n.07.1	M00001662A:G01	78823
4156	2/24/98	299	RTA00000405F.1.15.1	M00001694A:E03	19575
4157	2/24/98	475	RTA00000411F.d.05.1	M00001681C:A08	75812
4158	2/24/98	692	RTA00000411F.d.10.1	M00001681D:C12	76445
4159	2/24/98	336	RTA00000340F.n.13.1	M00001688D:B10	17055
4160	2/24/98	270	RTA00000411F.d.15.1	M00001692A:B06	74890
4161	2/24/98	969	RTA00000411F.d.18.1	M00001692A:G06	76063
4162	2/24/98	927	RTA00000411F.d.21.1	M00001692B:E01	74794
4163	2/24/98	1133	RTA00000405F.1.03.1	M00001692D:B01	38580
4164	2/24/98	576	RTA00000401F.d.15.2	M00001693C:C12	5297
4165	2/24/98	1059	RTA00000405F.h.21.2	M00001675C:D12	39072
4166	2/24/98	780	RTA00000405F.I.11.1	M00001693D:E08	2055
4167	2/24/98	933	RTA00000419F.a.18.1	M00001680A:B02	78484
4168 4169	2/24/98	631	RTA00000411F.e.03.1	M00001694D:C12	73648
4170	2/24/98	585	RTA00000340R.o.12.1	M00003746C:E02	53732
4170	2/24/98	604	RTA00000351R.c.13.1	M00003747D:C05	11476
4172	2/24/98	187	RTA00000351R.g.11.1	M00003779D:E08	3077
4172	2/24/98	1060	RTA00000346F.g.02.1	M00003792A:B10	6901
4173	2/24/98	690 86	RTA00000341F.b.05.1	M00003793D:A11	0
4174	2/24/98	86	RTA00000346F.g.22.1	M00003794D:G03	6371
4173	2/24/98 2/24/98	1051	RTA00000346F.h.24.1	M00003797A:C11	4379
4177	2/24/98	377	RTA00000346F.i.01.1	M00003797A:D06	22260
71//	4144170	963	RTA00000405F.1.07.1	M00001693C:E09	38636
			224		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
4178	2/24/98	121	RTA00000418F.p.19.1	M00001677D:B01	78544
4179	2/24/98	781	RTA00000423F.f.09.1	M00003808C:A05	64823
4180	2/24/98	1028	RTA00000346F.d.12.1	M00001676B:B09	11777
4181	2/24/98	82	RTA00000411F.b.03.1	M00001676B:E01	23634
4182	2/24/98	465	RTA00000350R.p.18.1	M00001676B:F05	11460
4183	2/24/98	56	RTA00000411F.b.06.1	M00001676C:A04	77884
4184	2/24/98	789	RTA00000423F.b.13.1	M00001676C:E07	20619
4185	2/24/98	267	RTA00000423F.a.19.1	M00001676D:A02	21396
4186	2/24/98	836	RTA00000411F.b.17.1	M00001676D:B02	72893
4187	2/24/98	370	RTA00000405F.i.20.1	M00001677A:G11	38532
4188	2/24/98	39	RTA00000187AF.1.7.1	M00001680D:F08	10539
4189	2/24/98	389	RTA00000411F.c.02.1	M00001677B:B04	72852
4190	2/24/98	1004	RTA00000419F.a.24.1	M00001680B:D02	79290
4191	2/24/98	958	RTA00000195AF.c.8.1	M00001678B:H01	0
4191	1/28/98	520	RTA00000195AF.c.8.1	M00001678B:H01	0
4192	2/24/98	958	RTA00000195AF.c.8.1	M00001678B:H01	0
4192	1/28/98	520	RTA00000195AF.c.8.1	M00001678B:H01	0
4193	2/24/98	500	RTA00000411F.c.10.1	M00001678D:B11	73117
4194	2/24/98	323	RTA00000421F.n.19.1	M00001679A:D10	16409
4195	2/24/98	309	RTA00000340F.n.01.1	M00001679A:G06	39081
4196	2/24/98	337	RTA00000340F.p.04.1	M00001679D:B02	78533
4197	1/28/98	238	RTA00000187AR.k.12.1	M00001679D:F02	78415
4197	2/24/98	407	RTA00000340R.m.07.1	M00001679D:F02	78415
4198	1/28/98	238	RTA00000187AR.k.12.1	M00001679D:F02	78415
4198	2/24/98	407	RTA00000340R.m.07.1	M00001679D:F02	78415
4199	2/24/98	387	RTA00000411F.a.15.1	M00001675D:B08	73812
4200	2/24/98	48	RTA00000411F.b.24.1	M00001677B:A12	30041
4201	2/24/98	234	RTA00000195AF.d.4.1	M00003881D:D06	22766
4201	1/28/98	185	RTA00000195AF.d.4.1	M00003881D:D06	22766
4202	2/24/98	130	RTA00000406F.f.12.1	M00003879A:C11	21895
4203	2/24/98	953	RTA00000406F.f.05.1	M00003878C:F06	22961
4204	2/24/98	138	RTA00000406F.f.03.1	M00003878C:D08	38687
4205	2/24/98	673	RTA00000406F.d.09.1	M00003875B:F12	38591
4206	2/24/98	136	RTA00000419F.I.12.1	M00003901C:B01	75710
4207	2/24/98	300	RTA00000406F.g.17.1	M00003881B:F10	37979
4208	2/24/98	2	RTA00000406F.d.16.1	M00003875C:G02	15040
4209	2/24/98	1207	RTA00000401F.j.21.1	M00003901B:F10	0
4210	2/24/98	494	RTA00000419F.k.12.1	M00003876C:F02	0
4211	2/24/98	515	RTA00000419F.I.03.1	M00003879A:D02	79060
4212	2/24/98	26	RTA00000423F.h.18.1	M00003876C:D02	37972
4213	2/24/98	49	RTA00000406F.d.12.1	M00003875C:A01	38575
4214	2/24/98	986	RTA00000406F.d.24.1	M00003876B:C05	37997
4215	2/24/98	150	RTA00000419F.k.19.1	M00003877C:G12	75447
4216	2/24/98	538	RTA00000423F.g.04.1	M00003903D:C12	23012
4217	2/24/98	1046	RTA00000346F.j.06.1	M00003879A:A02	5767
4218	2/24/98	868	RTA00000406F.i.08.1	M00003903C:E12	37946
4219	2/24/98	409	RTA00000406F.f.11.1	M00003879A:B08	38601
4220	2/24/98	924	RTA00000354R.m.02.1	M00003890B:C08	12766
4221	2/24/98	543	RTA00000419F.k.24.1	M00003878C:G08	75596
4222	1/28/98	185	RTA00000195AF.d.4.1	M00003881D:D06	22766
			225		

SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
4222	2/24/98	234	RTA00000195AF.d.4.1	M00003881D:D06	227//
4223	2/24/98	382	RTA00000193A1.d.4.1	M0000381D:D06 M00003901B:G11	22766 0
4224	2/24/98	550	RTA000003411.n.10.1	M00003901B:G11	
4225	2/24/98	614	RTA000004717.ii.20.1	M00003873C:A09 M00003904A:C04	75816
4226	2/24/98	13	RTA00000406F.f.18.1	M00003904A;C04 M00003879B;G02	37904
4227	2/24/98	1256	RTA000004001.1.18.1	M00003879B:G02	38587
4228	2/24/98	185	RTA00000423F.j.05.1	M00003903D:D10	799
4229	2/24/98	177	RTA000004251.j.05.1	M00003903C:C03	37958
4230	2/24/98	802	RTA00000406F.g.03.1	M00003903D:H11	39080
4231	2/24/98	34	RTA00000411F.n.11.1	M00003880B:D11	38690
4232	2/24/98	498	RTA00000406F.e.15.1	M00003873A.B01	77276
4233	2/24/98	929	RTA00000411F.n.09.1	M00003877C:A17	39074 78962
4234	2/24/98	984	RTA00000406F.g.08.1	M00003875A:A07	37963
4235	2/24/98	818	RTA00000406F.h.05.1	M00003800C:1103	38542
4236	2/24/98	592	RTA00000421F.p.18.1	M00003701B:C03	750
4237	2/24/98	313	RTA00000406F.g.07.1	M00003877B:1110	37925
4238	1/28/98	324	RTA00000184F.j.06.1	M0000356B:G02	11294
4239	2/24/98	773	RTA00000406F.h.03.1	M00003901B:A09	38585
4240	3/24/98	244	RTA00000426F.p.09.1	M00004033D:B07	66665
4241	3/24/98	222	RTA00000426F.p.10.1	M00004033D:C05	65845
4242	1/28/98	181	RTA00000198AF.d.2.1	M00001585A:F07	0
4243	1/28/98	77	RTA00000197AF.n.2.1	M00001535A:D02	6229
4244	2/24/98	844	RTA00000411F.a.09.1	M00001675C:F01	78629
4245	2/24/98	352	RTA00000411F.a.10.1	M00001675C:G01	73073
4246	3/24/98	272	RTA00000426F.m.02.1	M00004034C:C06	66237
4247	3/24/98	429	RTA00000525F.a.14.1	M00004033B:C02	37566
4248	2/24/98	118	RTA00000408F.h.03.1	M00001479D:H03	78382
4249	3/24/98	156	RTA00000525F.b.22.1	M00004037C:D07	16679
4250	2/24/98	70	RTA00000409F.m.13.1	M00001618B:E05	0
4251	2/24/98	1198	RTA00000412F.f.10.2	M00003959A:A03	65405
4252	2/24/98	1139	RTA00000404F.h.20.1	M00001619B:A09	15564
4253	3/24/98	41	RTA00000525F.b.17.1	M00004037B:A04	24715
4254	3/24/98	452	RTA00000525F.a.22.1	M00004033D:G06	36848
4255	2/24/98	1019	RTA00000403F.g.03.1	M00001479D:G06	23537
4256 4257	2/24/98	532	RTA00000403F.a.24.1	M00001455B:A09	24128
4257	3/24/98	5	RTA00000426F.p.04.1	M00004029B:H08	34149
4259	3/24/98	43	RTA00000527F.p.07.1	M00004029C:B03	23343
4260	2/24/98 2/24/98	562	RTA00000401F.j.17.1	M00003901B:C05	5483
4261	2/24/98	303	RTA00000130A.h.22.1	M00001617A:D06	80933
4262	3/24/98	1201 241	RTA00000409F.m.02.1	M00001616C:A11	9157
4263	2/24/98		RTA00000527F.o.12.1	M00004028B:G08	688
4264	2/24/98	1170 176	RTA00000409F.1.24.1	M00001616C:A02	73174
4265	1/28/98	131	RTA00000403F.b.10.1	M00001455C:G07	73268
4265	1/28/98	626	RTA00000185AF.d.11.2	M00001579D:C03	6539
4266	1/28/98	190	RTA00000185AR.d.11.1 RTA00000134A.c.7.1	M00001579D:C03	6539
4266	1/28/98	176		M00001528A:A01	5175
4267	3/24/98	90	RTA00000183AF.h.19.1 RTA00000525F.a.03.1	M00001528A:A01	5175
4268	3/24/98	236	RTA00000525F.a.05.1 RTA00000527F.o.01.1	M00004031D:F05	36786
4269	3/24/98	339	RTA00000327F.8.01.1 RTA00000426F.m.03.1	M00004027A:D06 M00004034C:E08	19088 66480

SEQ ID NO:	Filing Date of	SEQ ID NO: in	Sequence Name	Clone Name	Cluster ID
NO.	Priority	Priority			110
	Appln	Appin			
4270	1/28/98	183	RTA00000198AF.c.17.1	M00001579C:E08	6923
4271	3/24/98	44	RTA00000527F.p.17.1	M00004030C:D12	17223
4272	3/24/98	129	RTA00000527F.p.18.1	M00004030D:B06	31635
4273	3/24/98	402	RTA00000527F.p.24.1	M00004031B:A06	36832
4274	3/24/98	118	RTA00000525F.a.02.1	M00004031C:H10	37454
4275	1/28/98	353	RTA00000198F.a.9.1	M00001557D:C08	0
4276	2/24/98	1250	RTA00000403F.f.15.1	M00001477D:F10	22768
4277	1/28/98	131	RTA00000185AF.d.11.2	M00001579D:C03	6539
4277	1/28/98	626	RTA00000185AR.d.11.1	M00001579D:C03	6539
4278	2/24/98	428	RTA00000422F.f.14.1	M00001478B:D07	2036
4279	1/28/98	209	RTA00000182AF.c.5.1	M00001464D:F06	6397
4279	1/28/98	304	RTA00000182AR.c.5.1	M00001464D:F06	6397
4280	2/24/98	205	RTA00000138A.n.4.1	M00001624A:G11	21920
4281	2/24/98	251	RTA00000119A.i.9.1	M00001457A:G03	0
4282	3/24/98	250	RTA00000427F.h.24.1	M00004091B:H09	65193
4283	1/28/98	61	RTA00000197AF.h.11.1	M00001476D:G03	22264
4284	3/24/98	216	RTA00000427F.h.11.1	M00004092C:B12	26494
4285	1/28/98	110	RTA00000197R.h.01.1	M00001470A:H01	13075
4285	1/28/98	591	RTA00000197AF.h.1.1	M00001470A:H01	13075
4286	1/28/98	110	RTA00000197R.h.01.1	M00001470A:H01	13075
4286	1/28/98	591	RTA00000197AF.h.1.1	M00001470A:H01	13075
4287	3/24/98	276	RTA00000427F.h.19.1	M00004092D:B11	63047
4288	1/28/98	335	RTA00000182AF.e.3.2	M00001468B:H06	0
4289	3/24/98	475	RTA00000427F.i.06.1	M00004097B:D03	41450
4290	2/24/98	286	RTA00000404F.i.19.1	M00001625B:C10	38698
4291	1/28/98	209	RTA00000182AF.c.5.1	M00001464D:F06	6397
4291	1/28/98	304	RTA00000182AR.c.5.1	M00001464D:F06	6397
4292	2/24/98	1165	RTA00000408F.c.08.1	M00001456D:G11	73473
4293	1/28/98	304	RTA00000182AR.c.5.1	M00001464D:F06	6397
4293	1/28/98	209	RTA00000182AF.c.5.1	M00001464D:F06	6397
4294	1/28/98	138	RTA00000182AF.a.3.3	M00001462B:A10	0
4295	1/28/98	36	RTA00000181AF.p.4.3	M00001460A:A03	40392
4296	2/24/98	523	RTA00000418F.j.09.1	M00001626C:D12	76352
4297	2/24/98	296	RTA00000347F.d.06.1	M00001457C:F02	39122
4298	1/28/98	390	RTA00000197AR.f.07.1	M00001457C:C11	19261
4298	1/28/98	184	RTA00000197AF.f.7.1	M00001457C:C11	19261
4299	1/28/98	184	RTA00000197AF.f.7.1	M00001457C:C11	19261
4299	1/28/98	390	RTA00000197AR.f.07.1	M00001457C:C11	19261
4300	1/28/98	133	RTA00000181AR.n.20.3	M00001457B:E03	0
4301	3/24/98	132	RTA00000427F.k.17.1	M00004101A:F07	64965
4302	3/24/98	218	RTA00000427F.i.19.1	M00004102C:D01	64206
4303	3/24/98	436	RTA00000427F.i.21.1	M00004102C:F03	65540
4304	1/28/98	209	RTA00000182AF.c.5.1	M00001464D:F06	6397
4304	1/28/98	304	RTA00000182AR.c.5.1	M00001464D:F06	6397
4305	1/28/98	176	RTA00000183AF.h.19.1	M00001528A:A01	5175
4305	1/28/98	190	RTA00000134A.c.7.1	M00001528A:A01	5175
4306	1/28/98	12	RTA00000183AF.i.15.2	M00001529B:C04	2642
4306	2/24/98	379	RTA00000349R.j.07.1	M00001529B:C04	2642
4307	2/24/98	1156	RTA00000408F.f.10.2	M00001476D:C05	75309
4308	2/24/98	366	RTA00000403F.c.10.1	M00001456D:F05	75261
			227		

SEQ ID		SEQ ID	Sequence Name	Clone Name	Cluster
NO:	Date of				ID
	Priority	Priority			
4200	Appln	Appln	<b></b>		
4309 4310	2/24/98	353	RTA00000409F.n.17.1	M00001621C:C10	76725
4310	2/24/98	526	RTA00000411F.a.05.1	M00001675B:H03	76699
4311	2/24/98	90	RTA00000411F.a.02.1	M00001675B:E02	78537
4312	2/24/98	952	RTA00000411F.a.01.1	M00001675B:D02	74524
4313	2/24/98	392	RTA00000410F.p.23.1	M00001675B:C01	73948
4314	2/24/98	238	RTA00000340F.j.12.1	M00001624A:B06	3277
4315	1/28/98	176	RTA00000183AF.h.19.1	M00001528A:A01	5175
4315	1/28/98	190	RTA00000134A.c.7.1	M00001528A:A01	5175
4317	2/24/98	298	RTA00000406F.h.07.1	M00003901B:H04	38003
4317	1/28/98	190	RTA00000134A.c.7.1	M00001528A:A01	5175
4317	1/28/98	176	RTA00000183AF.h.19.1	M00001528A:A01	5175
4318	1/28/98	12	RTA00000183AF.i.15.2	M00001529B:C04	2642
4319	2/24/98	379	RTA00000349R.j.07.1	M00001529B:C04	2642
4319	1/28/98	122	RTA00000197AF.I.15.1	M00001517B:G08	4947
4320	3/24/98	199	RTA00000427F.f.24.1	M00004076D:B09	64572
4321	1/28/98	161	RTA00000183AF.e.23.2	M00001506D:A09	0
4322	1/28/98 1/28/98	17	RTA00000183AR.e.14.2	M00001506B:D09	17437
4324	1/28/98	346	RTA00000197AR.k.22.1	M00001505C:H01	11394
4325	1/28/98	125	RTA00000197AF.k.15.1	M00001504D:D11	22750.
4326	1/28/98	212	RTA00000197AF.j.9.1	M00001494B:C01	13236
4327	1/28/98	314	RTA00000182AF.o.5.1	M00001493B:D09	5007
4327	1/28/98	386	RTA00000197AR.j.04.1	M00001492D:A11	17209
4328	1/28/98	259 259	RTA00000197AF.j.4.1	M00001492D:A11	17209
4328	1/28/98	239 386	RTA00000197AF.j.4.1	M00001492D:A11	17209
4329	1/28/98	94	RTA00000197AR.j.04.1	M00001492D:A11	17209
4330	1/28/98	336	RTA00000195AF.b.4.1	M00001490C:D07	0
4330	1/28/98	83	RTA00000186AF.f.24.1	M00001629B:E06	0
4331	2/24/98	1037	RTA00000186AF.f.24.2	M00001629B:E06	0
4332	1/28/98	432	RTA00000339F.I.12.1 RTA00000198AF.o.05.1	M00001450A:G11	7711
4332	1/28/98	49	RTA00000198R.o.05.1	M00003750A:D01	26702
4333	2/24/98	468	RTA00000198R.0.03.1 RTA00000423F.c.19.1	M00003750A:D01	26702
4334	2/24/98	1009	RTA00000423F.c.19.1 RTA00000399F.o.24.1	M00001680B:E10	40472
4335	1/28/98	281	RTA00000399F.0.24.1 RTA00000188AF.n.10.1	M00001607D:A11	2272
4336	1/28/98	157	RTA00000188AF.n.01.1	M00003802D:B11	10283
4337	2/24/98	842	RTA00000401F.n.23.1	M00003801A:B10	36412
4338	2/24/98	1216	RTA00000404F.e.07.1	M00003982A:B06	1552
4339	2/24/98	1045	RTA000004041.e.07.1 RTA00000408F.j.05.2	M00001608A:D03 M00001483C:G06	9034
4340	2/24/98	483	RTA00000406F.g.22.1	M00001483C:G06 M00003881D:C12	73878
4341	1/28/98	310	RTA00000188AF.m.08.1	M00003881D:C12 M00003798D:H08	38590
4342	1/28/98	118	RTA00000199F.b.24.2	M00003798D:H08 M00003794A:B03	22155
4343	1/28/98	218	RTA00000188AF.o.18.1	M00003794A.B03 M00003811D:A12	0
4344	3/24/98	380	RTA00000427F.e.13.1	M00003811D.A12 M00003959D:A04	13678
4345	1/28/98	315	RTA00000199R.d.23.1	M00003335D:A04 M00003815D:H09	66080
4346	1/28/98	140	RTA00000199F.a.2.1	M00003773D:H09	37477
4347	3/24/98	101	RTA00000523F.j.19.1	M00003772A:D07 M00003966B:D02	12674
4348	1/28/98	278	RTA00000198AF.p.16.1	M00003768A:E02	65910
4349	2/24/98	514	RTA00000404F.e.13.1	M00003708A.E02 M00001608D:E09	71877
4350	1/28/98	508	RTA00000187AF.i.14.2	M00001608D:E09	12046
4350	2/24/98	928	RTA00000340F.m.04.1	M00001679B:H07	19406 19406
			220	000010170.1701	17400

SEQ ID NO:	Filing Date of	SEQ ID NO: in	Sequence Name	Clone Name	Cluster ID
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	Appln	Appln			
4351	1/28/98	317	RTA00000198AF.p.09.1	M00003761D:E02	10473
4351	1/28/98	186	RTA00000198R.p.09.1	M00003761D:E02	10473
4352	1/28/98	317	RTA00000198AF.p.09.1	M00003761D:E02	10473
4352	1/28/98	186	RTA00000198R.p.09.1	M00003761D:E02	10473
4353	3/24/98	66	RTA00000427F.b.15.1	M00003971C:F09	66891
4354	1/28/98	508	RTA00000187AF.i.14.2	M00001679B:H07	19406
4354	2/24/98	928	RTA00000340F.m.04.1	M00001679B:H07	19406
4355	1/28/98	144	RTA00000198AF.o.18.1	M00003755A:A09	13018
4356	3/24/98	248	RTA00000527F.I.14.1	M00003983D:A09	14935
4357	1/28/98	347	RTA00000199F.b.03.2	M00003779B:E12	38340
4358	1/28/98	272	RTA00000199F.g.08.2	M00003853D:G08	0
4359	1/28/98	263	RTA00000190AF.n.6.1	M00003965A:B11	0
4360	2/24/98	1183	RTA00000346F.j.21.1	M00003879D:A08	3095
4361	2/24/98	553	RTA00000408F.j.12.2	M00001485B:C03	18226
4362	3/24/98	181	RTA00000523F.b.06.1	M00003808A:F09	28736
4363	1/28/98	246	RTA00000199AF.I.4.1	M00003911D:B04	4410
4364	1/28/98	51	RTA00000199R.k.07.1	M00003901C:A03	12973
4365	1/28/98	62	RTA00000190AF.a.18.2	M00003900D:B10	0
4366	1/28/98	117	RTA00000199AF.j.18.1	M00003889D:B09	5140
4367	1/28/98	255	RTA00000199AF.j.17.1	M00003889A:D10	5121
4368	1/28/98	180	RTA00000199AF.j.12.1	M00003887A:A06	22461
4369	3/24/98	256	RTA00000523F.b.20.1	M00003809C:H07	66492
4370	2/24/98	603	RTA00000399F.o.19.1	M00001607A:F11	2594
4371	2/24/98	510	RTA00000131A.g.16.2	M00001449A:F01	0
4372	1/28/98	49	RTA00000198R.o.05.1	M00003750A:D01	26702
4372	1/28/98	432	RTA00000198AF.o.05.1	M00003750A:D01	26702
4373	2/24/98	424	RTA00000138A.e.13.1	M00001605A:E06	79608
4374	1/28/98	90	RTA00000199F.f.15.2	M00003845A:H12	8772
4375	1/28/98	244	RTA00000199F.f.12.2	M00003844C:A08	8131
4376	1/28/98	78	RTA00000199R.f.09.1	M00003842B:D09	22907
4376	1/28/98	406	RTA00000199F.f.09.2	M00003842B:D09	22907
4377	1/28/98	406	RTA00000199F.f.09.2	M00003842B:D09	22907
4377	1/28/98	78	RTA00000199R.f.09.1	M00003842B:D09	22907
4378	1/28/98	44	RTA00000199F.f.08.2	M00003841D:E03	12445
4379	1/28/98	39	RTA00000189AR.b.19.1	M00003832B:E01	5294
4379	2/24/98	239	RTA00000346F.j.02.1	M00003832B:E01	5294
4380	1/28/98	39	RTA00000189AR.b.19.1	M00003832B:E01	5294
4380	2/24/98	239	RTA00000346F.j.02.1	M00003832B:E01	5294
4381	2/24/98	1161	RTA00000346F.m.05.1	M00003983B:C08	5644
4382	2/24/98	887	RTA00000339F.p.06.1	M00001484A:A10	4880
4383	3/24/98	46	RTA00000523F.c.09.1	M00003813C:D08	47389
4384	2/24/98	1206	RTA00000418F.b.20.1	M00001484D:G05	73560
4385	1/28/98	336	RTA00000186AF.f.24.1	M00001629B:E06	0
4385	1/28/98	83	RTA00000186AF.f.24.2	M00001629B:E06	0
4386	1/28/98	111	RTA00000198AF.o.12.1	M00003751D:B02	22038
4387	3/24/98	365	RTA00000527F.k.16.1	M00003982B:B06	1015
4388	2/24/98	1113	RTA00000418F.p.21.1	M00001677D:F03	78068
4389	3/24/98	281	RTA00000527F.k.20.1	M00003982B:H07	17148
4390	1/28/98	360	RTA00000198F.i.5.1	M00001638A:D10	39989
4391	1/28/98	55	RTA00000186AF.i.21.1	M00001636C:H09	6033

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
4392	Appln	Appin	P.T. 100000100 151 041		
4392	1/28/98	316	RTA00000198AF.h.24.1	M00001636C:C01	8390
4393	1/28/98	208	RTA00000198AF.h.22.1	M00001635C:A03	22366
4394 4395	2/24/98	1031	RTA00000404F.g.08.1	M00001613D:H10	38980
4393	3/24/98	382	RTA00000427F.a.12.1	M00003982C:H10	63377
4396 4397	2/24/98	916	RTA00000418F.p.20.1	M00001677D:B07	78023
4397	1/28/98	91	RTA00000198AF.j.19.1	M00001653C:F12	38914
4398	2/24/98	858	RTA00000341F.e.20.1	M00003891D:B10	67422
4399 4399	1/28/98	354	RTA00000198R.k.03.1	M00001655A:F06	22765
	1/28/98	158	RTA00000198AF.k.03.1	M00001655A:F06	22765
4400	3/24/98	219	RTA00000427F.f.17.1	M00004115A:B12	63803
4401	3/24/98	153	RTA00000527F.I.13.1	M00003983C:F10	36904
4402	3/24/98	320	RTA00000427F.j.06.1	M00004102D:B05	63676
4403	2/24/98	762	RTA00000411F.c.04.1	M00001677B:E06	76858
4404 4405	2/24/98 3/24/98	957	RTA00000411F.c.03.1	M00001677B:B06	79280
4405		479	RTA00000527F.I.23.1	M00003984A:B06	36018
4406	1/28/98	329	RTA00000186AF.b.9.1	M00001616C:F07	0
	2/24/98	1115	RTA00000340F.i.08.1	M00001615B:F07	12005
4408 4409	2/24/98	1022	RTA00000401F.j.15.1	M00003901A:C09	3061
	1/28/98	4	RTA00000198R.f.04.1	M00001607D:F07	5023
4410 4411	3/24/98	173	RTA00000426F.m.18.1	M00003986D:G07	62974
4411	2/24/98	616	RTA00000423F.c.11.1	M00001677D:B02	0
4413	1/28/98	345	RTA00000187AF.h.21.1	M00001679A:F01	39171
4413	2/24/98	621	RTA00000408F.i.18.2	M00001482C:D02	74410
4415	1/28/98 2/24/98	344	RTA00000198AF.o.02.1	M00003748A:B07	68756
4416	2/24/98	257	RTA00000411F.c.17.1	M00001678D:G03	77664
4417	2/24/98	944 876	RTA00000422F.k.24.1	M00001610C:E06	39118
4418	2/24/98	876 1144	RTA00000423F.d.16.1	M00001678D:C11	39173
4419	1/28/98	242	RTA00000345F.j.09.1	M00001451B:F01	13
4419	1/28/98	260	RTA00000198AF.m.17.1	M00001679D:F06	77992
4420	1/28/98	260	RTA00000198R.m.17.1	M00001679D:F06	77992
4420	1/28/98	242	RTA00000198R.m.17.1	M00001679D:F06	77992
4421	1/28/98	242	RTA00000198AF.m.17.1	M00001679D:F06	77992
4421	1/28/98	260	RTA00000198AF.m.17.1	M00001679D:F06	77992
4422	1/28/98	260	RTA00000198R.m.17.1 RTA00000198R.m.17.1	M00001679D:F06	77992
4422	1/28/98	242	RTA00000198K.iii.17.1 RTA00000198AF.m.17.1	M00001679D:F06	77992
4423	1/28/98	238	RTA00000198AF.M.17.1 RTA00000187AR.k.12.1	M00001679D:F06	77992
4423	2/24/98	407	RTA00000187AR.K.12.1 RTA00000340R.m.07.1	M00001679D:F02	78415
4424	1/28/98	276	RTA00000340K.iii.07.1 RTA00000198AF.j.15.1	M00001679D:F02	78415
4425	1/28/98	65	RTA00000198AF.m.16.1	M00001653B:E09	4369
4426	1/28/98	257	RTA00000198AF.m.16.1	M00001679D:D05	51
4427	2/24/98	820	RTA00000198AF.6.20.1 RTA00000423F.d.11.1	M00001604C:E09	9810
4428	3/24/98	466	RTA00000423F.d.11.1 RTA00000427F.d.06.1	M00001678C:C06	38950
4429	2/24/98	455	RTA00000427F.d.00.1 RTA00000399F.d.23.1	M00003980B:C06	33446
4430	2/24/98	851	RTA00000399F.d.23.1 RTA00000423F.d.07.1	M00001481B:A07	3310
4431	1/28/98	142	RTA00000423F.d.07.1 RTA00000198AF.k.19.1	M00001678B:B12	0
4432	2/24/98	485	RTA00000198AF.K.19.1 RTA00000419F.a.02.1	M00001660B;C04	75879
4433	3/24/98	224	RTA00000419F.a.02.1 RTA00000527F.k.09.1	M00001678A:F05	77993
4434	2/24/98	1032	RTA00000327F.k.09.1 RTA00000423F.c.13.1	M00003981C:F05	213
4435	1/28/98	354	RTA00000423F.C.13.1 RTA00000198R.k.03.1	M00001678A:A11	39059
	= 0/ / 0	J J-1	220	M00001655A:F06	22765

SEQ ID NO:	Filing Date of	SEQ ID NO: in	Sequence Name	Clone Name	Cluster ID
	Priority	Priority			
4435	Appln 1/28/98	Appln 158	RTA00000198AF.k.03.1	M00001655A:F06	22765
4435	1/28/98	354	RTA00000198A1.k.03.1	M00001655A:F06	22765
4436	1/28/98	158	RTA00000178R.k.03.1	M00001655A:F06	22765
4437	1/28/98	158	RTA00000198AF.k.03.1	M00001055A:F06	22765
4437	1/28/98	354	RTA00000198R.k.03.1	M00001655A:F06	22765
4437	1/28/98	238	RTA00000198R.R.03.1	M00001639A:100	7 <b>8</b> 415
4438	2/24/98	407	RTA00000187AR.R.12.1 RTA00000340R.m.07.1	M00001679D:F02	78415
4439	1/28/98	669	RTA00000340Rin:07:1	M00004121B:G01	0
4440	3/24/98	394	RTA00000192A1.C.2.1 RTA00000527F.g.14.1	M00004121B:801 M00003845D:B02	37532
4441	1/28/98	608	RTA000003271.g.14.1 RTA00000192AF.p.8.1	M00003843D:B02 M00004212B:C07	2379
4441	2/24/98	653	RTA00000192A1.p.s.1 RTA00000352R.m.12.1	M00004212B:C07	2379
4442	1/28/98	608	RTA00000332R.iii.12.1 RTA00000192AF.p.8.1	M00004212B:C07	2379
4442	2/24/98	653	RTA00000132A1.p.8.1 RTA00000352R.m.12.1	M00004212B;C07	2379
4443	1/28/98	730	RTA00000332R.iii.12.1 RTA00000192AF.o.11.1	M00004212D:C07	0
4444	2/24/98	1157	RTA00000172A1.0.11.1 RTA00000422F.m.18.1	M00001647B:E04	23829
4445	2/24/98	1137	RTA000004221.iii.18.1 RTA00000120A.c.19.1	M00001464A:B03	81016
4446	2/24/98	913	RTA00000120A.c.19.1 RTA00000120A.c.20.1	M00001464A:B07	43235
4447	1/28/98	589	RTA00000120A.c.20.1	M00001404A.B07	16392
4448	2/24/98	640	RTA00000192A1.1.11 RTA00000405F.f.02.1	M00004183C:D07	38665
4449	1/28/98	27	RTA000004031.1.02.1	M00001009B:G02	5319
4450	2/24/98	681	RTA00000132A1.1.12.1 RTA00000120A.c.24.1	M00004167C:C12	34278
4451	2/24/98	265	RTA00000120A.c.24.1 RTA00000340F.k.16.1	M00001404A.D03	13157
4452	1/28/98	70	RTA000003401.R.10.1 RTA00000192AF.e.3.1	M00001047B:C07	13137
4453	3/24/98	171	RTA00000192A1.e.3.1 RTA00000523F.e.10.1	M00004138B:1102 M00003829A:F03	62878
4454	2/24/98	1134	RTA000003231.c.10.1 RTA00000418F.m.02.1	M00003629A:103	74550
4455	1/28/98	618	RTA000004181 MI.02.1 RTA00000192AF.a.14.1	M00001030A:A12	6874
4456	1/28/98	457	RTA00000192A1.a.14.1 RTA00000191AR.I.7.2	M00004171D:A00	14391
4457	2/24/98	596	RTA00000151AK.1.7.2 RTA00000351R.i.03.1	M00003846B:D06	6874
4458	3/24/98	460	RTA00000537R.f.05.1 RTA00000523F.f.16.1	M00003840B:E07	26522
4459	3/24/98	400	RTA00000523F.f.17.1	M00003840B:E08	63984
4460	2/24/98	1129	RTA00000323117.1	M00003907D:F11	2893
4461	2/24/98	132	RTA00000418F.m.05.1	M00003507B:C10	73600
4462	1/28/98	482	RTA00000187AF.j.7.1	M00001679C:F01	78091
4463	2/24/98	1107	RTA00000419F.I.22.1	M00003903D:C06	78444
4464	2/24/98	609	RTA000004191.ii.22.17	M00003703B:800	16785
4465	1/28/98	376	RTA00000177AF.m.18.3	M00001355B:G11	0
4465	1/28/98	375	RTA00000177AF.m.18.1	M00001355B:G11	0
4466	2/24/98	186	RTA000001777118.10.1	M00001353B:G17	81284
4467	1/28/98	18	RTA00000196AF.c.17.1	M00001352C:F06	39602
4468	3/24/98	282	RTA00000427F.h.22.1	M00001332C:F00	64547
4469	2/24/98	859	RTA000004271 in:22:1	M00003914A:G09	75600
4470	3/24/98	33	RTA00000524F.b.21.1	M00005216C:B09	0
4471	3/24/98	170	RTA00000524F.d.12.1	M00003210C:D09	64888
4472	3/24/98	117	RTA00000523F.d.18.1	M00003822B:G01	64072
4473	2/24/98	739	RTA00000323F.h.20.1	M00003914A:G06	38639
4474	2/24/98	527	RTA00000429F.m.21.1	M00003914A:E04	77947
4475	2/24/98	237	RTA000001191.iii.21.1	M00003314A:E04 M00001460A:F07	80336
4476	2/24/98	349	RTA00000119A.j.22.1 RTA00000404F.m.10.2	M00001400A:107	779
4477	2/24/98	462	RTA00000119A.j.23.1	M00001041D:E02	79835
4477	2/24/98	1263	RTA00000119A.j.23.1 RTA00000341F.i.22.1	M00001400A:G07	79633 7825
ט ז דד	2127170	1203	221		1023

SEQ ID NO:	Date of	SEQ ID NO: in	Sequence Name	Clone Name	Cluster ID
	Priority	Priority			10
4.450	Appln	$\Lambda$ ppln			
4479	3/24/98	47	RTA00000523F.e.18.1	M00003829D:A11	62898
4480	1/28/98	152	RTA00000196AF.c.20.1	M00001352C:H02	8934
4481	3/24/98	13	RTA00000528F.m.16.1	M00003845D:C03	4468
4482	1/28/98	14	RTA00000196R.c.11.2	M00001352A:E12	13658
4483	2/24/98	641	RTA00000410F.j.20.1	M00001642D:G10	73601
4484	1/28/98	141	RTA00000196AF.c.6.1	M00001350A:D06	23148
4485	1/28/98	25	RTA00000196AF.c.1.1	M00001349C:C05	817]
4486 4487	2/24/98	436	RTA00000119A.m.15.1	M00001461A:E05	80989
	1/28/98	9	RTA00000177AF.g.22.1	M00001347C:G08	7031
4488	2/24/98	162	RTA00000406F.I.08.1	M00003908D:D12	39016
4489	2/24/98	1056	RTA00000419F.m.18.1	M00003908C:G09	76014
4490 4491	1/28/98	73	RTA00000177AF.e.21.3	M00001344A:H07	4306
4491 4492	3/24/98	326	RTA00000527F.e.09.1	M00003826B:E11	37521
	2/24/98	900	RTA00000419F.m.13.1	M00003908A:F12	79052
4493 4494	2/24/98	441	RTA00000404F.m.20.2	M00001647A:H08	39144
4494 4495	2/24/98	1217	RTA00000410F.j.17.1	M00001642D:F02	72912
4495 4496	3/24/98	309	RTA00000523F.j.10.1	M00003860B:G09	63384
4496 4497	2/24/98	385	RTA00000418F.m.14.1	M00001651B:E06	75711
4497	2/24/98	1121	RTA00000120A.m.10.3	M00001467A:B03	81376
4499	1/28/98	617	RTA00000179AF.d.13.3	M00001394A:F01	6583
4500	2/24/98	1242	RTA00000405F.d.10.1	M00001661C:F11	39000
4500 4501	3/24/98	19	RTA00000527F.j.02.2	M00003856A:B07	4896
4502	2/24/98 3/24/98	645	RTA00000422F.p.12.2	M00001661C:F10	9840
4503	3/24/98 2/24/98	142	RTA00000523F.i.18.1	M00003856B:C04	64463
4504	1/28/98	376 533	RTA00000400F.k.22.1	M00001656A:B07	2512
4505	2/24/98	532	RTA00000177AF.o.4.1	M00001358C:C06	0
4506	2/24/98	1128 1143	RTA00000423F.a.02.3	M00001656B:A08	39210
4507	2/24/98	408	RTA00000423F.a.03.1	M00001656B:D05	26796
4508	3/24/98	360	RTA00000405F.d.14.1	M00001662A:C12	35209
4509	1/28/98	409	RTA00000523F.j.03.1	M00003860A:A08	64535
4510	2/24/98	784	RTA00000180AF.d.1.3	M00001418D:B06	8526
4511	3/24/98	120	RTA00000418F.o.14.1 RTA00000426F.h.09.1	M00001661B:B05	33524
4512	1/28/98	706	RTA00000426F.n.09.1 RTA00000177AF.i.6.4	M00003905B:G03	78797
4513	3/24/98	4	RTA00000177AF.1.6.4 RTA00000426F.h.11.1	M00001350A:B08	0
4514	2/24/98	697	RTA00000420F.fl.11.1 RTA00000412F.d.14.1	M00003905B:H05	75479
4515	2/24/98	908	RTA00000412F.d.14.1 RTA00000423F.g.03.1	M00003905D:C08	76757
4516	3/24/98	342	RTA00000423F.g.03.1 RTA00000427F.e.12.1	M00003905C:G11	38007
4517	2/24/98	97	RTA000004271.e.12.1 RTA00000403F.e.01.1	M00003959C:G06	62813
4518	2/24/98	555	RTA00000133A.d.22.1	M00001473A:C11	38965
4519	2/24/98	454	RTA00000133A.d.22.1 RTA00000418F.n.19.1	M00001469A:G11	11797
4520	2/24/98	562	RTA000004181.11.17.1	M00001659C:F02	28761
4521	2/24/98	1215	RTA00000422F.o.08.2	M00003901B:C05 M00001659D:D03	5483
4522	2/24/98	635	RTA00000418F.o.17.1	M00001639D:D03	26832
4523	3/24/98	190	RTA00000523F.h.12.1		79069
4524	1/28/98	267	RTA000003251.ii.12.11	M00003851C:D07 M00001630B:H09	65745
4525	2/24/98	238	RTA00000340F.j.12.1	M00001630B:H09 M00001624A:B06	5214
4526	2/24/98	331	RTA00000404F.o.18.2	M00001624A:B06 M00001651C:C05	3277
4527	1/28/98	626	RTA00000185AR.d.11.1	M00001631C:C03 M00001579D:C03	39110
4527	1/28/98	131	RTA00000185AF.d.11.2	M00001579D:C03 M00001579D:C03	6539 6539
			222		0339

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
4528	1/28/98	626	RTA00000185AR.d.11.1	M00001579D:C03	6539
4528	1/28/98	131	RTA00000185AF.d.11.2	M00001579D:C03	6539
4529	1/28/98	147	RTA00000185AF.c.24.2	M00001578B:E04	23001
4530	2/24/98	164	RTA00000345F.k.06.1	M00001475A:A12	0
4531	2/24/98	611	RTA00000404F.p.02.2	M00001652D:A06	39097
4532	2/24/98	274	RTA00000405F.e.08.1	M00001663C:F10	37916
4533	2/24/98	755	RTA00000423F.d.17.1	M00001663A:C11	20630
4534	2/24/98	126	RTA00000422F.j.20.1	M00001653A:G07	22388
4535	3/24/98	195	RTA00000523F.i.08.1	M00003855A:C12	65099
4536	3/24/98	83	RTA00000527F.i.05.2	M00003851C:B06	37481
4537	1/28/98	375	RTA00000177AF.m.18.1	M00001355B:G11	0
4537	1/28/98	376	RTA00000177AF.m.18.3	M00001355B:G11	0
4538	2/24/98	763	RTA00000135A.m.18.1	M00001545A:C03	19255
4539	2/24/98	362	RTA00000418F.m.16.1	M00001653B:E06	74986
4540	2/24/98	287	RTA00000410F.n.09.1	M00001662C:A04	11736
4541	3/24/98	416	RTA00000527F.i.12.2	M00003852B:D11	0
4542	2/24/98	662	RTA00000339F.o.07.1	M00001473D:G01	2566
4543	2/24/98	949	RTA00000340R.j.07.1	M00001654C:D05	38954
4544	3/24/98	146	RTA00000527F.i.17.2	M00003853B:C08	37539
4545	2/24/98	939	RTA00000405F.a.03.1	M00001654C:E04	39065
4546	3/24/98	42	RTA00000527F.i.19.2	M00003853C:C06	38089
4547	3/24/98	381	RTA00000426F.f.18.1	M00003854C:C02	63271
4548	2/24/98	656	RTA00000403F.e.08.1	M00001473D:B11	19126
4549	3/24/98	37	RTA00000426F.f.20.1	M00003854C:F01	65134
4550	2/24/98	733	RTA00000405F.d.18.1	M00001662C:B02	10494
4551	1/28/98	334	RTA00000181AR.b.21.3	M00001444C:D05	3266
4551	1/28/98	321	RTA00000181AR.b.21.1	M00001444C:D05	3266
4552	3/24/98	198	RTA00000523F.o.05.1	M00005175B:H04	0
4553	3/24/98	302	RTA00000427F.p.04.2	M00005100B:H07	0
4554	3/24/98	203	RTA00000427F.p.10.2	M00005102C:F09	0
4555	1/28/98	331	RTA00000197AR.c.20.1	M00001449D:A06	16282
4556	3/24/98	6	RTA00000523F.l.10.1	M00005134B:E01	0
4557	1/28/98	174	RTA00000181AF.e.22.3	M00001448D:F09	3442
4558	3/24/98	79	RTA00000523F.l.15.1	M00005134C:E11	0
4559	3/24/98	386	RTA00000523F.l.16.1	M00005134C:G04	0
4560	3/24/98	76	RTA00000523F.l.18.1	M00005134D:A06	0
4561	3/24/98	192	RTA00000523F.m.02.1	M00005134D:H03	0
4562	3/24/98	290	RTA00000427F.1.03.1	M00005136D:B07	0
4563	3/24/98	269	RTA00000427F.p.02.2	M00005100B:D02	0
4564	1/28/98	321	RTA00000181AR.b.21.1	M00001444C:D05	3266
4564	1/28/98	334	RTA00000181AR.b.21.3	M00001444C:D05	3266
4565	3/24/98	334	RTA00000427F.n.11.1	M00004960B:A09	0
4566	1/28/98	334	RTA00000181AR.b.21.3	M00001444C:D05	3266
4566	1/28/98	321	RTA00000181AR.b.21.1	M00001444C:D05	3266
4567	1/28/98	334	RTA00000181AR.b.21.3	M00001444C:D05	3266
4567	1/28/98	321	RTA00000181AR.b.21.1	M00001444C:D05	3266
4568	3/24/98	328	RTA00000523F.n.01.1	M00005137A:E01	0
4569	1/28/98	356	RTA00000180AF.I.12.2	M00001433B:H11	0
4570	3/24/98	68	RTA00000523F.n.04.1	M00005138B:D12	0
4571	3/24/98	127	RTA00000523F.n.10.1	M00005140D:G09	0

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
4572	1/28/98	187	RTA00000180AR.j.04.4	M00001429C:G12	22300
4573	3/24/98	112	RTA00000523F.n.12.1	M00005173C:A02	0
4574	3/24/98	305	RTA00000523F.n.16.1	M00005173D:H02	0
4575	3/24/98	164	RTA00000523F.n.17.1	M00005174D:B02	0
4576	3/24/98	107	RTA00000523F.n.20.1	M00005174D:H02	0
4577	2/24/98	898	RTA00000418F.I.03.1	M00001641C:C06	79058
4578	3/24/98	288	RTA00000427F.I.04.1	M00005136D:C01	0
4579	3/24/98	462	RTA00000427F.p.13.2	M00004695B:E04	0
4580	1/28/98	137	RTA00000181AF.m.4.3	M00001455A:E09	13238
4581	1/28/98	20	RTA00000181AF.1.14.2	M00001454D:D06	2364
4582	3/24/98	105	RTA00000526F.d.01.1	M00004104B:A02	4468
4583	3/24/98	261	RTA00000427F.i.22.1	M00004104D:B05	63199
4584	3/24/98	81	RTA00000427F.j.07.1	M00004105A:B10	64819
4585	3/24/98	287	RTA00000525F.d.19.1	M00004114B:D09	36860
4586	1/28/98	311	RTA00000191AR.j.4.2	M00004071D:A10	5198
4587	3/24/98	337	RTA00000525F.e.08.1	M00004115C:H04	24193
4588	3/24/98	206	RTA00000525F.f.07.1	M00004119A:A06	37500
4589	3/24/98	461	RTA00000427F.f.15.1	M00004119D:A07	66734
4590	3/24/98	410	RTA00000427F.f.16.1	M00004119D:H06	64122
4591	3/24/98	307	RTA00000427F.p.03.2	M00005100B:G11	0
4592	3/24/98	180	RTA00000523F.k.02.1	M00004687A:C03	0
4593	1/28/98	115	RTA00000179AR.o.20.3	M00001409D:F11	2409
4594	3/24/98	315	RTA00000427F.n.19.1	M00004891D:E07	0
4595	3/24/98	375	RTA00000427F.p.19.2	M00004895C:G05	Õ
4596	3/24/98	470	RTA00000427F.p.24.2	M00004897D:F03	0
4597	1/28/98	155	RTA00000197F.e.8.1	M00001454A:C11	3135
4598	1/28/98	286	RTA00000181AR.k.2.3	M00001453C:A11	0
4598	1/28/98	389	RTA00000181AR.k.2.2	M00001453C:A11	0
4599	1/28/98	286	RTA00000181AR.k.2.3	M00001453C:A11	0
4599	1/28/98	389	RTA00000181AR.k.2.2	M00001453C:A11	0
4600	1/28/98	285	RTA00000181AR.j.14.3	M00001453B:E10	5399
4601	3/24/98	317	RTA00000428F.a.01.1	M00004897D:G05	0
4602	3/24/98	85	RTA00000427F.m.21.1	M00004900C:E11	0
4603	3/24/98	121	RTA00000427F.n.02.1	M00004900D:B10	0
4604	3/24/98	78	RTA00000427F.o.05.1	M00004958B:D01	0
4605	3/24/98	437	RTA00000427F.n.10.1	M00004960B:A08	0
4606	3/24/98	388	RTA00000526F.d.17.1	M00004235A:A12	2757
4607	1/28/98	299	RTA00000196AF.f.5.1	M00001366D:G02	11937
4608	1/28/98	369	RTA00000196F.m.3.1	M00001413A:F02	10453
4609	3/24/98	319	RTA00000523F.p.15.1	M00005178B:H01	0
4610	1/28/98	374	RTA00000178AF.I.11.1	M00001383A:G04	23286
4611	2/24/98	1090	RTA00000405F.g.22.1	M00001673C:A02	527
4612	1/28/98	127	RTA00000178AF.k.18.1	M00001382A:F04	9755
4613	1/28/98	104	RTA00000196R.h.03.1	M00001381A:D02	6636
4614	2/24/98	642	RTA00000341F.h.19.1	M00003916C:C05	0
4615	2/24/98	655	RTA00000351R.p.14.1	M00003915C:H04	13166
4616	1/28/98	145	RTA00000178AF.h.24.1	M00001376B:C06	6745
4617	2/24/98	224	RTA00000341F.g.21.1	M00003914C:F09	8823
4618	2/24/98	301	RTA00000401F.m.23.1	M00003914C:C02	2801
4619	2/24/98	133	RTA00000404F.l.20.1	M00001639B:H05	38638

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
4610	Appln	Appln	DT 4 00000 40 45 1 00 0	N400001620D 1105	20/20
4619	2/24/98	63	RTA00000404F.I.20.2	M00001639B:H05	38638
4620	2/24/98	542	RTA00000410F.i.19.1	M00001641B:C10	78988
4621	2/24/98	63	RTA00000404F.1.20.2	M00001639B:H05	38638
4621	2/24/98	133	RTA00000404F.1.20.1	M00001639B:H05	38638
4622	2/24/98	600	RTA00000406F.m.04.1	M00003914B:A11	14959
4623	1/28/98	33	RTA00000178AR.a.20.1	M00001362C:H11	945
4623	2/24/98	979	RTA00000345F.b.17.1	M00001362C:H11	945
4624	1/28/98	33	RTA00000178AR.a.20.1	M00001362C:H11	945
4624	2/24/98	979	RTA00000345F.b.17.1	M00001362C:H11	945
4625	3/24/98	73	RTA00000524F.b.12.1	M00005213C:G01	0
4626	1/28/98	373	RTA00000196F.e.12.1	M00001361C:H11	10147
4627	2/24/98	1233	RTA00000418F.1.02.1	M00001641C:C05	39316
4628	3/24/98	184	RTA00000524F.b.18.1	M00005214B:D11	0
4629	3/24/98	353	RTA00000428F.a.18.1	M00005214C:A09	0
4630	1/28/98	89	RTA00000177AF.n.8.3	M00001356D:F06	4188
4630	1/28/98	15	RTA00000177AR.n.8.1	M00001356D:F06	4188
4631	1/28/98	89	RTA00000177AF.n.8.3	M00001356D:F06	4188
4631	1/28/98	15	RTA00000177AR.n.8.1	M00001356D:F06	4188
4632	1/28/98	375	RTA00000177AF.m.18.1	M00001355B:G11	0
4632	1/28/98	376	RTA00000177AF.m.18.3	M00001355B:G11	0
4633	1/28/98	375	RTA00000177AF.m.18.1	M00001355B:G11	0
4633	1/28/98	376	RTA00000177AF.m.18.3	M00001355B:G11	0
4634	2/24/98	682	RTA00000410F.i.17.1	M00001641B:B01	78147
4635	1/28/98	367	RTA00000196F.i.24.1	M00001392C:D10	4233
4636	1/28/98	264	RTA00000179AF.k.3.3	M00001401A:H07	0
4637	1/28/98	333	RTA00000196F.k.15.1	M00001400A:F06	8320
4638	1/28/98	38	RTA00000196R.k.07.1	M00001399C:D09	22443
4638	1/28/98	289	RTA00000196F.k.07.1	M00001399C:D09	22443
4639	1/28/98	38	RTA00000196R.k.07.1	M00001399C:D09	22443
4639	1/28/98	289	RTA00000196F.k.07.1	M00001399C:D09	22443
4640	1/28/98	289	RTA00000196F.k.07.1	M00001399C:D09	22443
4640	1/28/98	38	RTA00000196R.k.07.1	M00001399C:D09	22443
4641	1/28/98	38	RTA00000196R.k.07.1	M00001399C:D09	22443
4641	1/28/98	289	RTA00000196F.k.07.1	M00001399C:D09	22443
4642	3/24/98	324	RTA00000523F.o.09.1	M00005176A:C12	0
4643	3/24/98	122	RTA00000523F.o.12.1	M00005177A:B06	0
4644	1/28/98	167	RTA00000179AF.d.22.3	M00001394C:C11	7955
4645	1/28/98	351	RTA00000179AF.c.22.1	M00001393B:B09	22515
4645	1/28/98	459	RTA00000179AF.c.22.3	M00001393B:B09	22515
4646	1/28/98	351	RTA00000179AF.c.22.1	M00001393B:B09	22515
4646	1/28/98	459	RTA00000179AF.c.22.3	M00001393B:B09	22515
4647	3/24/98	361	RTA00000523F.p.08.1	M00005178A:A07	0
4648	1/28/98	43	RTA00000179AF.c.14.3	M00001392D:H04	0
4649	3/24/98	268	RTA00000427F.k.19.1	M00004103B:B07	62851
4650	3/24/98	473	RTA00000523F.o.21.1	M00005177C:A01	0
4651	1/28/98	60	RTA00000196AR.i.12.3	M00001389D:G11	38800
4651	1/28/98	128	RTA00000196F.i.12.1	M00001389D:G11	38800
4652	1/28/98	128	RTA00000196F.i.12.1	M00001389D:G11	38800
4652	1/28/98	60	RTA00000196AR.i.12.3	M00001389D:G11	38800
4653	1/28/98	60	RTA00000196AR.i.12.3	M00001389D:G11	38800
			A A =		

SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
4653	1/28/98	Appln 128	DTA00000106E: 12.1	14000012000 044	
4654	1/28/98	60	RTA00000196F.i.12.1 RTA00000196AR.i.12.3	M00001389D:G11	38800
4654	1/28/98	128		M00001389D:G11	38800
4655	1/28/98	28	RTA00000196F.i.12.1	M00001389D:G11	38800
4656	1/28/98	279	RTA00000178AR.o.01.5	M00001387B:H07	0
4657	1/28/98	130	RTA00000196AF.h.24.1	M00001386A:D11	7308
4658	1/28/98	254	RTA00000196AF.h.23.1	M00001386A:C02	13357
4659	1/28/98	74	RTA00000178AF.n.2.1	M00001385C:H11	17083
4660	1/28/98	377	RTA00000196AF.h.20.1	M00001385B:F10	0
4660	1/28/98	120	RTA00000178AF.m.19.1	M00001384D:H07	0
4661	1/28/98	377	RTA00000178AR.m.19.5	M00001384D:H07	0
4661	1/28/98	120	RTA00000178AF.m.19.1	M00001384D:H07	0
4662	3/24/98	228	RTA00000178AR.m.19.5	M00001384D:H07	0
4663	1/28/98	567	RTA00000523F.o.14.1	M00005177A:H09	0
4663	1/28/98	538	RTA00000177AR.m.13.1	M00001355A:C12	4175
4663	1/28/98	533	RTA00000177AR.m.13.3	M00001355A:C12	4175
4664	1/28/98	555 511	RTA00000177AR.m.13.4	M00001355A:C12	4175
4665	1/28/98	620	RTA00000196AF.g.10.1	M00001376B:A02	12498
4665	1/28/98	619	RTA00000201R.g.08.1	M00004692A:E07	0
4665	1/28/98	621	RTA00000201F.g.08.1	M00004692A:E07	0
4666	3/24/98	194	RTA00000201R.g.08.2	M00004692A:E07	0
4667	2/24/98	194 79	RTA00000522F.j.12.2	M00001651C:A04	74341
4668	1/28/98	619	RTA00000419F.g.08.1	M00003842C:D11	66700
4668	1/28/98	620	RTA00000201F.g.08.1	M00004692A:E07	0
4668	1/28/98	621	RTA00000201R.g.08.1	M00004692A:E07	0
4669	1/28/98	529	RTA00000201R.g.08.2	M00004692A:E07	0
4670	2/24/98	111	RTA00000178AF.b.13.1	M00001364A:E11	3114
4671	3/24/98	379	RTA00000128A.i.20.1	M00001560A:F03	9900
4672	3/24/98	135	RTA00000522F.k.02.2	M00001652C:B09	77622
4673	2/24/98	1197	RTA00000522F.k.10.2	M00001652D:B09	77619
4674	2/24/98	140	RTA00000128A.j.10.1	M00001560A:H06	80085
4675	3/24/98	247	RTA00000128A.j.6.2	M00001560A:H10	5316
4676	1/28/98	538	RTA00000425F.j.21.1	M00001633B:B11	77373
4676	1/28/98	567	RTA00000177AR.m.13.3	M00001355A:C12	4175
4676	1/28/98	533	RTA00000177AR.m.13.1	M00001355A:C12	4175
4677	2/24/98	729	RTA00000177AR.m.13.4 RTA00000403F.m.20.1	M00001355A:C12	4175
4677	2/24/98	437	RTA00000403F.m.20.1 RTA00000403F.m.20.2	M00001576A:F11	707
4678	1/28/98	533		M00001576A:F11	707
4678	1/28/98	538	RTA00000177AR.m.13.4 RTA00000177AR.m.13.3	M00001355A:C12	4175
4678	1/28/98	567		M00001355A:C12	4175
4679	1/28/98	533	RTA00000177AR.m.13.1	M00001355A:C12	4175
4679	1/28/98	538	RTA00000177AR.m.13.4	M00001355A:C12	4175
4679	1/28/98	567 <sup>-</sup>	RTA00000177AR.m.13.3 RTA00000177AR.m.13.1	M00001355A:C12	4175
4680	1/28/98	538	RTA00000177AR.m.13.1 RTA00000177AR.m.13.3	M00001355A:C12	4175
4680	1/28/98	567		M00001355A:C12	4175
4680	1/28/98	533	RTA00000177AR.m.13.1	M00001355A:C12	4175
4681	1/28/98	533	RTA00000177AR.m.13.4	M00001355A:C12	4175
4681	1/28/98	538	RTA00000177AR.m.13.4	M00001355A:C12	4175
4681	1/28/98	567	RTA00000177AR.m.13.3	M00001355A:C12	4175
4682	1/28/98	620	RTA00000177AR.m.13.1	M00001355A:C12	4175
	1120170	V4.U	RTA00000201R.g.08.1	M00004692A:E07	0

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
4600	Appln	Appln	DT. 00000001D 00.0	14000044004 505	_
4682	1/28/98	621	RTA00000201R.g.08.2	M00004692A:E07	0
4682	1/28/98	619	RTA00000201F.g.08.1	M00004692A:E07	0
4683	2/24/98	845	RTA00000348R.b.04.1	M00001342B:E01	1890
4684	2/24/98	1088	RTA00000339R.b.02.1	M00001344B:F12	0
4684	2/24/98	1149	RTA00000339F.b.02.1	M00001344B:F12	0
4685	2/24/98	618	RTA00000423F.I.04.1	M00004039B:G08	14320
4686	2/24/98	1235	RTA00000411F.j.04.1	M00003841C:F03	66219
4687	2/24/98	415	RTA00000340R.f.05.1	M00001569B:G11	3202
4688	2/24/98	1088	RTA00000339R.b.02.1	M00001344B:F12	0
4688	2/24/98	1149	RTA00000339F.b.02.1	M00001344B:F12	0
4689	2/24/98	1067	RTA00000411F.j.11.1	M00003841D:F06	66154
4690	1/28/98	429	RTA00000196F.i.19.1	M00001390C:C11	39498
4690	2/24/98	925	RTA00000353R.h.10.1	M00001390C:C11	39498
4691	1/28/98	508	RTA00000187AF.i.14.2	M00001679B:H07	19406
4691	2/24/98	928	RTA00000340F.m.04.1	M00001679B:H07	19406
4692	2/24/98	10	RTA00000350R.c.12.1	M00001550D:A04	9728
4693	1/28/98	553	RTA00000201F.b.22.1	M00004344B:H04	35728
4694	1/28/98	459	RTA00000179AF.c.22.3	M00001393B:B09	22515
4694	1/28/98	351	RTA00000179AF.c.22.1	M00001393B:B09	22515
4695	1/28/98	351	RTA00000179AF.c.22.1	M00001393B:B09	22515
4695	1/28/98	459	RTA00000179AF.c.22.3	M00001393B:B09	22515
4696	2/24/98	235	RTA00000126A.o.23.1	M00001551A:B10	6268
4697	2/24/98	942	RTA00000126A.n.6.2	M00001551A:D04	79917
4698	2/24/98	228	RTA00000411F.k.19.1	M00003852D:E08	64200
4699	1/28/98	638	RTA00000193AF.1.05.2	M00004348A:A02	2815
4700	3/24/98	431	RTA00000425F.I.09.1	M00001638A:B04	75251
4701	1/28/98	540	RTA00000179AF.b.10.3	M00001391D:D10	0
4702	2/24/98	390	RTA00000355R.a.14.1	M00004187D:G09	10207
4703	1/28/98	429	RTA00000196F.i.19.1	M00001390C:C11	39498
4703	2/24/98	925	RTA00000353R.h.10.1	M00001390C:C11	39498
4704	2/24/98	930	RTA00000127A.h.22.2	M00001554A:E04	13155
4705	2/24/98	1193	RTA00000411F.k.14.1	M00003851A:C10	63987
4706	1/28/98	694	RTA00000201R.c.19.1	M00004370A:G05	22357
4707	3/24/98	80	RTA00000425F.p.12.1	M00001638C:G01	73219
4708	3/24/98	344	RTA00000425F.p.15.1	M00001638C:H07	31680
4709	1/28/98	743	RTA00000178AF.k.9.1	M00001381B:F06	16342
4710	2/24/98	202	RTA00000419F.g.22.1	M00003845D:A09	64515
4711	1/28/98	749	RTA00000178AR.i.13.4	M00001377B:H01	0
4712	3/24/98	217	RTA00000425F.j.16.1	M00001639D:F02	75631
4713	3/24/98	448	RTA00000425F.j.18.1	M00001639D:G12	75561
4714	1/28/98	385	RTA00000201F.c.24.1	M00004374D:E10	35731
4715	2/24/98	904	RTA00000127A.e.6.1	M00001553A:E07	5885
4716	2/24/98	620	RTA00000420F.a.07.1	M00004072C:F08	63405
4717	1/28/98	396	RTA00000179AR.b.02.3	M00001391B:G12	0
4718	2/24/98	463	RTA00000403F.o.22.1	M00001583A:D01	25076
4718	2/24/98	1084	RTA00000403F.o.22.2	M00001583A:D01	25076
4719	2/24/98	1225	RTA00000346F.j.13.1	M00003841C:E04	5337
4720	2/24/98	1221	RTA00000403F.o.17.1	M00001582D:A02	23085
4721	2/24/98	878	RTA00000413F.c.12.1	M00004083B:G03	65334
4722	2/24/98	764	RTA00000413F.c.17.1	M00004085B:B05	36831

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
4723	2/24/98	398	RTA00000407F.b.04.1	M00004086D:B09	63221
4724	2/24/98	1179	RTA00000341F.o.12.1	M00004144A:F04	2883
4725	2/24/98	7	RTA00000413F.d.12.1	M00004088C:A12	66467
4726	2/24/98	881	RTA00000413F.d.15.1	M00004088C:E04	64943
4727	2/24/98	463	RTA00000403F.o.22.1	M00001583A:D01	25076
4727	2/24/98	1084	RTA00000403F.o.22.2	M00001583A:D01	25076
4728	2/24/98	1084	RTA00000403F.o.22.2	M00001583A:D01	25076
4728	2/24/98	463	RTA00000403F.o.22.1	M00001583A:D01	25076
4729	1/28/98	506	RTA00000198R.o.09.1	M00003751B:A05	4310
4729	1/28/98	497	RTA00000198AF.o.09.1	M00003751B:A05	4310
4730	2/24/98	1015	RTA00000129A.b.6.2	M00001582A:H01	39111
4731	2/24/98	866	RTA00000407F.b.08.1	M00004088D:B03	37513
4732	2/24/98	943	RTA00000413F.c.03.1	M00004081D:H09	64527
4733	2/24/98	463	RTA00000403F.o.22.1	M00001583A:D01	25076
4733	2/24/98	1084	RTA00000403F.o.22.2	M00001583A:D01	25076
4734	1/28/98	490	RTA00000198AF.n.05.1	M00001687A:G01	24157
4735	2/24/98	798	RTA00000420F.c.04.1	M00004089A:B08	65007
4736	2/24/98	850	RTA00000420F.c.07.1	M00004089A:E02	65555
4737	2/24/98	199	RTA00000403F.m.13.2	M00001575D:A10	39077
4738	1/28/98	424	RTA00000187AR.j.24.1	M00001679D:B05	78356
4738	1/28/98	418	RTA00000187AR.k.01.1	M00001679D:B05	78356
4739	1/28/98	424	RTA00000187AR.j.24.1	M00001679D:B05	78356
4739	1/28/98	418	RTA00000187AR.k.01.1	M00001679D:B05	78356
4740	1/28/98	418	RTA00000187AR.k.01.1	M00001679D:B05	78356
4740	1/28/98	424	RTA00000187AR.j.24.1	M00001679D:B05	78356
474]	1/28/98	424	RTA00000187AR.j.24.1	M00001679D:B05	78356
4741	1/28/98	418	RTA00000187AR.k.01.1	M00001679D:B05	78356
4742	1/28/98	482	RTA00000187AF.j.7.1	M00001679C:F01	78091
4743	1/28/98	693	RTA00000198F.m.12.1	M00001679C:D05	4
4744	3/24/98	23	RTA00000522F.p.07.1	M00001670A:C11	76888
4745	1/28/98	497	RTA00000198AF.o.09.1	M00003751B:A05	4310
4745	1/28/98	506	RTA00000198R.o.09.1	M00003751B:A05	4310
4746	1/28/98	642	RTA00000189AF.i.14.1	M00003868B:G11	0
4747	2/24/98	1119	RTA00000126A.k.24.1	M00001550A:F07	39428
4748	2/24/98	654	RTA00000421F.a.05.1	M00001570C:G06	5278
4749	2/24/98	1146	RTA00000347F.h.02.1	M00004072D:H12	562
4750	2/24/98	137	RTA00000339R.a.06.1	M00001346A:E04	58694
4751	2/24/98	729	RTA00000403F.m.20.1	M00001576A:F11	707
4751	2/24/98	437	RTA00000403F.m.20.2	M00001576A:F11	707
4752	2/24/98	627	RTA00000408F.p.21.1	M00001579A:C03	77930
4753	2/24/98	735	RTA00000420F.a.11.1	M00004073C:D04	66460
4754	2/24/98	525	RTA00000348R.d.24.1	M00001349B:G05	5774
4755	2/24/98	624	RTA00000420F.a.16.1	M00004075D:C10	63345
4756	2/24/98	437	RTA00000403F.m.20.2	M00001576A:F11	707
4756	2/24/98	729	RTA00000403F.m.20.1	M00001576A:F11	707
4757	2/24/98	437	RTA00000403F.m.20.2	M00001576A:F11	707
4757	2/24/98	729	RTA00000403F.m.20.1	M00001576A:F11	707
4758	1/28/98	499	RTA00000199F.b.22.2	M00003791C:E09	17018
4759	2/24/98	843	RTA00000418F.g.03.1	M00001579C:E06	78737
4760	2/24/98	956	RTA00000423F.I.06.1	M00004062A:H06	38136
			220		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
4761	2/24/98	826	RTA00000422F.e.07.1	M00001579C:G05	38964
4761	2/24/98	832	RTA00000403F.o.10.2	M00001579C:G05	38964
4762	2/24/98	826	RTA00000422F.c.07.1	M00001579C:G05	38964
4762	2/24/98	832	RTA00000403F.o.10.2	M00001579C:G05	38964
4763	2/24/98	826	RTA00000422F.e.07.1	M00001579C:G05	38964
4763	2/24/98	832	RTA00000403F.o.10.2	M00001579C:G05	38964
4764	2/24/98	826	RTA00000422F.e.07.1	M00001579C:G05	38964
4764	2/24/98	832	RTA00000403F.o.10.2	M00001579C:G05	38964
4765	2/24/98	1159	RTA00000413F.b.18.1	M00004078C:F04	39873
4766	2/24/98	1122	RTA00000419F.f.16.1	M00003839D:E02	64679
4767	2/24/98	1053	RTA00000413F.b.24.1	M00004080A:F01	65117
4768	2/24/98	1053	RTA00000420F.b.02.1	M00004081A:A08	64013
4769	2/24/98	157	RTA00000339F.a.23.1	M00001361B:C07	4022
4770	1/28/98	452	RTA00000199F.d.19.2	M00003813D:H12	6707
4771	2/24/98	480	RTA00000411F.i.15.1	M00003837C:G08	31612
4772	2/24/98	125	RTA00000403F.m.18.1	M00001576A:B09	39185
4773	2/24/98	548	RTA00000413F.b.12.1	M00004077B;H11	64932
4774	2/24/98	814	RTA000004151.5.12.1	M00001530B:G09	34263
4775	1/28/98	688	RTA00000193AF.g.3.1	M00004050D:A06	5567
4776	1/28/98	451	RTA00000200AF.b.20.1	M00004043A:D02	40403
4777	1/28/98	456	RTA00000200AF.b.12.1	M00004040B:F10	22053
4778	2/24/98	849	RTA00000122A.n.16.1	M00001517A:G08	80553
4779	1/28/98	12	RTA00000183AF.i.15.2	M00001529B:C04	2642
4779	2/24/98	379	RTA00000349R.j.07.1	M00001529B:C04	2642
4780	1/28/98	12	RTA00000183AF.i.15.2	M00001529B:C04	2642
4780	2/24/98	379	RTA00000349R.j.07.1	M00001529B:C04	2642
4781	1/28/98	512	RTA00000191AF.c.3.1	M00003987D:D06	3549
4782	2/24/98	431	RTA00000399F.j.15.1	M00001578C:G06	1261
4783	1/28/98	586	RTA00000199R.o.11.1	M00003976C:A10	23172
4784	1/28/98	496	RTA00000190AF.p.3.1	M00003975B:F03	2378
4785	2/24/98	340	RTA00000408F.I.13.1	M00001530A:B12	4423
4786	1/28/98	617	RTA00000179AF.d.13.3	M00001394A:F01	6583
4787	2/24/98	779	RTA00000408F.I.16.1	M00001530A:F12	73468
4788	1/28/98	387	RTA00000191AF.j.14.1	M00004073A:H12	1002
4788	2/24/98	632	RTA00000191AF.j.14.1	M00004073A:H12	1002
4789	1/28/98	464	RTA00000199AF.I.14.1	M00003917A:D02	22865
4790	2/24/98	668	RTA00000408F.m.05.2	M00001530C:G10	23384
4791	2/24/98	1066	RTA00000123A.f.2.1	M00001531A:H03	80379
4792	2/24/98	213	RTA00000123A.f.3.1	M00001531A:H07	44017
4793	2/24/98	43	RTA00000420F.g.04.1	M00004891B:B12	0
4794	2/24/98	302	RTA00000356R.f.18.1	M00004692A:H10	0
4795	2/24/98	308	RTA00000353R.d.11.1	M00004692A:H08	0
4796	2/24/98	975	RTA00000411F.n.02.1	M00003870B:F04	78049
4797	1/28/98	722	RTA00000199R.j.24.1	M00003895C:A10	0
4798	2/24/98	643	RTA00000420F.I.14.2	M00005230D:F06	0
4799	1/28/98	480	RTA00000181AF.o.08.2	M00001457C:H12	849
4800	1/28/98	518	RTA00000199AF.n.22.1	M00003971A:A06	23064
4801	1/28/98	618	RTA00000192AF.a.14.1	M00004111D:A08	6874
4802	2/24/98	937	RTA00000121A.n.15.1	M00001511A:G08	40849
4803	2/24/98	821	RTA00000420F.h.16.1	M00004927A:E06	0
					•

SEQ ID NO:	Filing Date of Priority AppIn	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
4804	2/24/98	658	RTA00000121A.n.2.1	M00001511A:A05	33585
4805	2/24/98	551	RTA00000340F.b.05.1	M00001513A:G07	0
4806	2/24/98	172	RTA00000420F.i.17.1	M00005101C:B09	0
4807	2/24/98	1224	RTA00000122A.h.24.1	M00001514A:A12	48
4808	1/28/98	631	RTA00000200AF.h.19.2	M00004151D:E03	0
4809	2/24/98	80	RTA00000122A.g.16.1	M00001131B:B03	81366
4810	2/24/98	809	RTA00000420F.i.23.1	M00005134A:D11	0
4811	2/24/98	650	RTA00000122A.g.17.1	M00003134A:B08	32655
4812	2/24/98	73	RTA00000413F.p.15.2	M0000131471:B00	0
4813	1/28/98	425	RTA00000200AF.c.16.1	M00003730D:B00	23433
4814	2/24/98	60	RTA00000413F.p.17.2	M00004004D:A11	0
4815	1/28/98	387	RTA000001191AF.j.14.1	M00003130D:G00 M00004073A:H12	1002
4815	2/24/98	632	RTA00000191AF,j.14.1	M00004073A:H12	1002
4816	2/24/98	837	RTA00000420F.h.01.1	M00004897C:D06	0
4817	2/24/98	123	RTA00000122A.j.18.1	M00001516A:D05	81317
4818	2/24/98	77	RTA00000420F.j.22.1	M00005173B:F01	0
4819	1/28/98	734	RTA00000200AF.d.21.1	M00003173B:107	0
4820	1/28/98	733	RTA00000200AF.d.20.1	M00004087A:G08	26600
4821	2/24/98	1003	RTA00000420F.k.08.2	M00005176C:C09	0
4822	1/28/98	442	RTA00000191AF.I.9.1	M00003170C:E09	0
4823	1/28/98	457	RTA00000191AR.1.7.2	M00004081C:D12	14391
4824	2/24/98	552	RTA00000411F.n.12.1	M00003875A:C04	73308
4825	2/24/98	782	RTA00000419F.k.03.1	M00003871C:B05	40822
4826	2/24/98	839	RTA00000414F.b.01.1	M00005212B:A02	0
4827	1/28/98	674	RTA00000197AR.e.24.1	M00001456B:F10	39250
4827	1/28/98	3	RTA00000197AF.e.24.1	M00001456B:F10	39250
4828	1/28/98	669	RTA00000192AF.c.2.1	M00004121B:G01	0
4829	1/28/98	718	RTA00000196F.I.14.2	M00001408B:G06	23144
4830	2/24/98	1259	RTA00000420F.I.19.2	M00005231A:H04	0
4831	1/28/98	<b>7</b> 17	RTA00000200F.o.10.2	M00004269B:C08	36432
4832	2/24/98	107	RTA00000125A.g.16.1	M00001544A:C09	21497
4833	1/28/98	697	RTA00000193AF.e.21.1	M00004271B:B06	0
4834	2/24/98	829	RTA00000411F.m.11.1	M00003867A:D12	73196
4835	1/28/98	409	RTA00000180AF.d.1.3	M00001418D:B06	8526
4836	3/24/98	426	RTA00000424F.k.21.1	M00001614A:A04	73197
4837	2/24/98	874	RTA00000346F.o.22.1	M00004300C:H09	7381
4838	3/24/98	136	RTA00000424F.m.22.1	M00001614C:E11	72943
4839	2/24/98	636	RTA00000418F.e.21.1	M00001577B:A03	74773
4840	2/24/98	1202	RTA00000347F.h.10.1	M00004206A:E02	22779
4841	2/24/98	1030	RTA00000125A.c.17.1	M00001542A:E04	80619
4842	2/24/98	753	RTA00000345F.o.13.1	M00001546B:F12	11500
4843	2/24/98	221	RTA00000414F.f.13.1	M00005259D:H08	0
4844	2/24/98	193	RTA00000347F.b.10.1	M00001546C:C07	8044
4845	2/24/98	1104	RTA00000126A.b.10.1	M00001547A:F06	0
4846	2/24/98	1177	RTA00000126A.b.9.1	M00001547A:F11	81279
4847	2/24/98	923	RTA00000126A.d.19.1	M00001548A:G01	79474
4848	2/24/98	98	RTA00000411F.I.03.1	M00003854D:A12	62702
4849	2/24/98	625	RTA00000126A.h.22.2	M00001549A:F01	0
4850	1/28/98	710	RTA00000196AF.I.3.1	M00001405B:D07	20864
4851	2/24/98	1102	RTA00000126A.j.15.2	M00001549A:H11	40425

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
4852	3/24/98	467	RTA00000528F.h.02.2	M00001632C:D08	1701
4853	1/28/98	411	RTA00000179AF.j.13.3	M00001400B:H06	0
4854	2/24/98	1126	RTA00000136A.h.6.1	M00001550A:D09	81620
4855	1/28/98	712	RTA00000201F.b.21.1	M00004341B:G03	9071
4856	2/24/98	1257	RTA00000419F.h.21.1	M00003856C:B08	64828
4857	2/24/98	194	RTA00000124A.k.5.1	M00001538A:F12	80252
4858	1/28/98	508	RTA00000187AF.i.14.2	M00001679B:H07	19406
4858	2/24/98	928	RTA00000340F.m.04.1	M00001679B:H07	19406
4859	1/28/98	3	RTA00000197AF.e.24.1	M00001456B:F10	39250
4859	1/28/98	674	RTA00000197AR.e.24.1	M00001456B:F10	39250
4860	2/24/98	606	RTA00000420F.1.20.2	M00005232A:C10	0
4861	2/24/98	30	RTA00000411F.m.24.1	M00003870B:B08	77568
4862	2/24/98	31	RTA00000134A.j.10.1	M00001534A:G06	81383
4863	2/24/98	1136	RTA00000406F.c.05.1	M00003870A:H01	22077
4864	2/24/98	411	RTA00000420F.m.12.1	M00005234D:B04	0
4865	2/24/98	1086	RTA00000403F.n.22.2	M00001578B:B05	26775
4865	2/24/98	1085	RTA00000403F.n.22.1	M00001578B:B05	26775
4866	2/24/98	1018	RTA00000413F.j.21.1	M00004688A:A02	0
4867	2/24/98	657	RTA00000124A.k.20.1	M00001538A:C08	80913
4868	2/24/98	718	RTA00000124A.k.23.1	M00001538A:D03	81350
4869	2/24/98	1092	RTA00000125A.c.2.1	M00001542A:F06	40148
4870	2/24/98	615	RTA00000135A.b.23.1	M00001538A:D12	35241
4871	2/24/98	639	RTA00000414F.d.09.1	M00005231C:B01	0
4872	2/24/98	1086	RTA00000403F.n.22.2	M00001578B:B05	26775
4872	2/24/98	1085	RTA00000403F.n.22.1	M00001578B:B05	26775
4873	2/24/98	99	RTA00000420F.m.19.1	M00005254D:B08	0
4874	2/24/98	1085	RTA00000403F.n.22.1	M00001578B:B05	26775
4874	2/24/98	1086	RTA00000403F.n.22.2	M00001578B:B05	26775
4875	2/24/98	1086	RTA00000403F.n.22.2	M00001578B:B05	26775
4875	2/24/98	1085	RTA00000403F.n.22.1	M00001578B:B05	26775
4876	1/28/98	725	RTA00000197AF.b.1.1	M00001441D:E04	12134
4877	2/24/98	215	RTA00000403F.j.18.1	M00001539D:E10	5790
4878	2/24/98	1010	RTA00000408F.n.16.2	M00001540C:B03	73720
4879	2/24/98	1074	RTA00000423F.h.11.1	M00003867C:E11	38977
4880	2/24/98	27	RTA00000420F.n.19.2	M00005259B:C01	0
4881	1/28/98	578	RTA00000180AF.g.17.1	M00001426A:A09	16653
4882	2/24/98	1172	RTA00000423F.h.03.1	M00003875D:D09	37903
4883	2/24/98	1008	RTA00000414F.f.07.1	M00005259C:B05	0
4884	2/24/98	582	RTA00000414F.e.14.1	M00005236B:F10	0
4885	1/28/98	178	RTA00000200F.o.03.1	M00004257C:H06	22807
4885	1/28/98	249	RTA00000200R.o.03.2	M00004257C:H06	22807
4885	1/28/98	85	RTA00000200R.o.03.1	M00004257C:H06	22807
4886	2/24/98	1223	RTA00000347F.a.14.1	M00001429D:F11	7421
4887	2/24/98	488	RTA00000339F.k.23.1	M00001429D:H12	0
4888	3/24/98	100	RTA00000424F.i.21.1	M00001596A:E07	73482
4889	3/24/98	64	RTA00000424F.i.24.1	M00001596A:G06	79101
4890	3/24/98	207	RTA00000424F.j.07.1	M00001596B:C11	79211
4891	3/24/98	327	RTA00000424F.j.08.1	M00001596B:D09	73972
4892	3/24/98	349	RTA00000424F.j.09.1	M00001596B:H05	74387
4893	3/24/98	154	RTA00000522F.h.13.1	M00001596C:F09	40823
			2.41		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
4894	2/24/98	1252	RTA00000400F.g.08.1	M00001639A:C11	1275
4895	2/24/98	261	RTA00000341F.b.06.1	M00001039A:E11	17008
4896	1/28/98	312	RTA00000193AF.h.2.1	M00003794A:E12	3273
4897	1/28/98	590	RTA00000190AF.d.2.1	M00004290A:B03	3273 2444
4898	1/28/98	213	RTA00000200F.o.04.1	M00003300B:112	12514
4899	2/24/98	333	RTA00000399F.f.11.1	M00004200D:C12	40167
4900	1/28/98	249	RTA00000200R.o.03.2	M00001487C:101	22807
4900	1/28/98	178	RTA00000200F.o.03.1	M00004257C:H06	22807
4900	1/28/98	85	RTA00000200R.o.03.1	M00004257C:H06	22807
4901	1/28/98	85	RTA00000200R.o.03.1	M00004257C:H06	22807
4901	1/28/98	178	RTA00000200F.o.03.1	M00004257C:H06	22807
4901	1/28/98	249	RTA00000200R.o.03.2	M00004257C:H06	22807
4902	1/28/98	85	RTA00000200R.o.03.1	M00004257C:H06	22807
4902	1/28/98	249	RTA00000200R.o.03.2	M00004257C:H06	22807
4902	1/28/98	178	RTA00000200F.o.03.1	M00004257C:H06	22807
4903	1/28/98	249	RTA00000200R.o.03.2	M00004257C:H06	22807
4903	1/28/98	85	RTA00000200R.o.03.1	M00004257C:H06	22807
4903	1/28/98	178	RTA00000200F.o.03.1	M00004257C:H06	22807
4904	1/28/98	249	RTA00000200R.o.03.2	M00004257C:H06	22807
4904	1/28/98	85	RTA00000200R.o.03.1	M00004257C:H06	22807
4904	1/28/98	178	RTA00000200F.o.03.1	M00004257C:H00	22807
4905	3/24/98	133	RTA00000425F.f.04.1	M00004297C:1100	24633
4906	3/24/98	169	RTA00000425F.f.05.1	M00001607A:D00	24090
4907	2/24/98	44	RTA00000418F.k.14.1	M00001639A:H06	76133
4908	2/24/98	1204	RTA00000419F.I.02.1	M00003879A:C01	75736
4909	2/24/98	748	RTA00000346F.f.11.1	M000037771:C07	38528
4910	2/24/98	4	RTA00000339F.i.20.1	M00001438D:C06	4356
4911	1/28/98	93	RTA00000200F.o.11.1	M00004270A:F11	0
4912	1/28/98	435	RTA00000182AR.c.22.1	M00001467A:D08	16283
4913	1/28/98	683	RTA00000187AR.j.01.1	M00001679C:D01	79028
4914	3/24/98	469	RTA00000522F.e.20.1	M00001590B:H10	26770
4915	1/28/98	172	RTA00000186AF.p.09.2	M00001655C:E04	6879
4916	2/24/98	806	RTA00000345F.f.08.1	M00001413B:H09	0
4917	1/28/98	677	RTA00000197AF.i.19.1	M00001490B:H11	39554
4918	1/28/98	443	RTA00000197AR.i.17.1	M00001490A:E11	3516
4919	2/24/98	863	RTA00000406F.p.08.1	M00004032C:B02	37573
4920	3/24/98	55	RTA00000528F.e.23.1	M00001593B:D10	19242
4921	2/24/98	1211	RTA00000399F.f.14.1	M00001487D:C11	11483
4922	1/28/98	609	RTA00000196AF.n.05.1	M00001418B:F07	12531
4922	2/24/98	1120	RTA00000353R.1.23.1	M00001418B:F07	12531
4923	1/28/98	609	RTA00000196AF.n.05.1	M00001418B:F07	12531
4923	2/24/98	1120	RTA00000353R.1.23.1	M00001418B:F07	12531
4924	3/24/98	474	RTA00000522F.h.05.1	M00001595C:H11	73358
4925	1/28/98	284	RTA00000199F.d.10.2	M00003808C:B05	22049
4925	2/24/98	816	RTA00000354R.n.04.1	M00003808C:B05	22049
4926	2/24/98	1112	RTA00000418F.c.05.1	M00001487B:F02	76475
4927	1/28/98	687	RTA00000197AF.g.4.1	M00001464B:B03	8821
4928	2/24/98	990	RTA00000121A.h.19.1	M00001471A:D04	80334
4929	1/28/98	696	RTA00000180AR.d.16.3	M00001419D:C10	11393
4929	2/24/98	1184	RTA00000345F.h.08.1	M00001419D:C10	11393
			242		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clonc Name	Cluster ID
	Appln	Appin			
4930	1/28/98	751	RTA00000179AF.c.4.3	M00001392D:B11	0
4931	1/28/98	696	RTA00000180AR.d.16.3	M00001332D:D11	11393
4931	2/24/98	1184	RTA0000345F.h.08.1	M00001419D:C10	11393
4932	1/28/98	162	RTA00000201F.e.15.1	M00004444B:D11	9960
4933	1/28/98	126	RTA00000201F.d.16.1	M00004388B:A08	0
4934	1/28/98	332	RTA00000193AR.n.04.3	M00004375C:D01	9850
4935	2/24/98	838	RTA00000408F.k.19.1	M00001373C:D01	77593
4936	2/24/98	113	RTA00000401F.e.02.1	M00003805B:C04	0
4937	3/24/98	278	RTA00000522F.g.21.1	M00003503D:C01	77310
4937	3/24/98	54	RTA00000322F.g.27.7	M00001553D:G07	32635
4939	2/24/98	976	RTA00000419F.b.17.1	M00003808D:D04	63261
4940	2/24/98	59	RTA00000346F.j.08.1	M00003879B:A06	39951
4941	2/24/98	151	RTA000003401 5.00.1	M00003779D::100	7899
4942	1/28/98	67	RTA000003411.6.2111 RTA00000200AF.g.07.1	M000037070:100	0
4942	2/24/98	324	RTA00000200711.g.0711	M00003750C:H05	Ö
4944	2/24/98	476	RTA00000345F.h.01.1	M00003730E:H03	10834
4945	2/24/98	245	RTA000003451.ii.d1.1	M00001447B:D11	37574
4945	1/28/98	243 87	RTA00000195AF.d.20.1	M00004117A:D11	37574
4945 4946	2/24/98	245	RTA00000195AF.d.20.1	M00004117A:D11	37574
4946	1/28/98	87	RTA00000195AF.d.20.1	M00004117A:D11	37574
4940	2/24/98	991	RTA00000173At.d.20.1	M00001177A:D11	78566
4947 4948	2/24/98	14	RTA00000419F.b.09.1	M00001694C:G04	78128
4949	1/28/98	261	RTA000004191.0.09.11 RTA00000192AF.a.24.1	M00001034C:F11	13183
4949	1/28/98	24	RTA00000192A1.a.24.1	M00004114C:171	0
4950	3/24/98	408	RTA00000200Ar.i.i.rr.i	M00004111B:B11	78798
4951	1/28/98	328	RTA000003221.0.10.1 RTA00000200AF.g.09.1	M00001000B:E03	22785
4952	1/28/98	26	RTA00000200At.g.09.1	M00004131B:H09	22785
4952	2/24/98	861	RTA00000200R.g.05.1	M00001694B:B08	76728
4954	3/24/98	24	RTA000004171.b.00.1	M00001656A:D10	76343
4955	2/24/98	760	RTA00000322F.ii.00.1	M00001694A:B12	11307
4956	3/24/98	220	RTA00000423F.d.04.1	M000016971:B12	76366
4957	2/24/98	279	RTA000003221.0.70.7	M00001596D:E10	78728
4958	1/28/98	84	RTA000004181 ii.2111 RTA00000191AF.h.14.1	M00001376B:D09	13553
4959	1/28/98	284	RTA00000199F.d.10.2	M00003808C:B05	22049
4959	2/24/98	816	RTA000007571.d.10.2	M00003808C:B05	22049
4960	2/24/98	217	RTA00000399F.o.17.1	M00003600C:203	1106
4961	1/28/98	287	RTA00000200AF.b.07.1	M00004039C:C01	17125
4961	1/28/98	173	RTA00000200AR.b.07.1	M00004039C:C01	17125
4962	1/28/98	287	RTA00000200AF.b.07.1	M00004039C:C01	17125
4962	1/28/98	173	RTA00000200AR.b.07.1	M00004039C:C01	17125
4963	1/28/98	287	RTA00000200AR.b.07.1	M00004039C:C01	17125
4963	1/28/98	173	RTA00000200AR.b.07.1	M00004039C:C01	17125
4964	1/28/98	2 <b>8</b> 7	RTA00000200AR.b.07.1	M00004039C:C01	17125
4964	1/28/98	173	RTA00000200AR.b.07.1	M00004039C:C01	17125
4965	3/24/98	464	RTA00000522F.p.18.1	M000040376:E01 M00001671A:H06	76376
4965 4966	3/24/98 3/24/98	453	RTA00000522F.p.18.1	M00001671B:F02	73322
4966 4967	2/24/98	54 54	RTA000003221.p.22.1 RTA00000399F.o.01.1	M00001071B:102	3055
4967 4968	2/24/98	1219	RTA00000399F.0.01.1 RTA00000347F.e.20.1	M00001333C:E01	39911
4968 4969	2/24/98	825	RTA00000347F.e.20.1 RTA00000404F.k.22.2	M00003771B:E03	39084
4969 4969	2/24/98	364	RTA00000404F.k.22.1	M00001635D:C12	39084
マフリフ	2127170	JU <del>T</del>	242		27001

SEQ ID	Filing	SEQ ID	Some Name	<b>Q1</b>	,
NO:	Date of	NO: in	Sequence Name	Clone Name	Cluster
	Priority				ID
	Appln	Appln			
4970	1/28/98	241	RTA00000200AF.I.17.1	M000042170 Dog	
4970	1/28/98	151	RTA00000200AF.I.17.1	M00004217C:D03	12771
4970	1/28/98	202	RTA00000200R.I.17.1	M00004217C:D03	12771
4971	1/28/98	241	RTA00000200R.I.17.2	M00004217C:D03	12771
4971	1/28/98	151	RTA00000200R1.17.1	M00004217C:D03	12771
4971	1/28/98	202	RTA00000200R.1.17.1	M00004217C:D03	12771
4972	1/28/98	241	RTA00000200K.1.17.2	M00004217C:D03	12771
4972	1/28/98	202	RTA00000200R.I.17.2	M00004217C:D03	12771
4972	1/28/98	151	RTA00000200R.I.17.1	M00004217C:D03	12771
4973	1/28/98	241	RTA00000200AF.I.17.1	M00004217C:D03	12771
4973	1/28/98	202	RTA00000200AI.17.1	M00004217C:D03	12771
4973	1/28/98	151	RTA00000200R.I.17.1	M00004217C:D03	12771
4974	1/28/98	241	RTA00000200AF.I.17.1	M00004217C:D03	12771
4974	1/28/98	202	RTA00000200R.I.17.1	M00004217C:D03	12771
4974	1/28/98	151	RTA00000200R.1.17.1	M00004217C:D03	12771
4975	1/28/98	241	RTA00000200AF.J.17.1	M00004217C:D03	12771
4975	1/28/98	151	RTA00000200AL.17.1	M00004217C:D03	12771
4975	1/28/98	202	RTA00000200R.I.17.1	M00004217C:D03	12771
4976	1/28/98	241	RTA00000200AF.I.17.1	M00004217C:D03	12771
4976	1/28/98	151	RTA00000200A1.177.1	M00004217C:D03	12771
4976	1/28/98	202	RTA00000200R.I.17.1	M00004217C:D03	12771
4977	1/28/98	241	RTA00000200AF.I.17.1	M00004217C:D03	12771
49 <b>7</b> 7	1/28/98	151	RTA00000200R.I.17.1	M00004217C:D03 M00004217C:D03	12771
4977	1/28/98	202	RTA00000200R.I.17.1	M00004217C:D03	12771
4978	1/28/98	241	RTA00000200AF.I.17.1	M00004217C:D03	12771
4978	1/28/98	151	RTA00000200R.I.17.1	M00004217C:D03	12771
4978	1/28/98	202	RTA00000200R.1.17.2	M00004217C:D03	12771
4979	1/28/98	366	RTA00000192AF.o.19.1	M00004217C:D03	12771
4980	1/28/98	328	RTA00000200AF.g.09.1	M00004208D.H08	3549
4980	1/28/98	26	RTA00000200R.g.09.1	M00004131B:H09	22785
4981	1/28/98	245	RTA00000200AF.k.7.1	M00004191B:H09	22785 0
4982	2/24/98	1036	RTA00000339F.k.08.1	M00001439B:A10	Ü
4983	2/24/98	72	RTA00000347F.a.08.1	M00001437B:A10	8133 3135
4984	2/24/98	1163	RTA00000341F.b.14.1	M00001372C:G04	5992
4985	2/24/98	278	RTA00000404F.c.10.1	M00003703A:C01	23534
4986	1/28/98	250	RTA00000192AF.j.21.1	M00004176D:B12	23334
4987	2/24/98	511	RTA00000341F.b.13.1	M00003762B:H09	0
4988	1/28/98	27	RTA00000192AF.i.12.1	M00004169C:C12	5319
4989	2/24/98	416	RTA00000404F.c.19.1	M00001594A:D06	39026
4990	2/24/98	351	RTA00000340F.p.20.1	M00003752B:C02	17008
4991	1/28/98	215	RTA00000192AR.e.14.3	M00004142A:D08	3300
4992	1/28/98	163	RTA00000192AR.e.13.3	M00004142A:B12	9457
4993	1/28/98	318	RTA00000200AF.g.17.1	M00004138A:H09	0
4994	2/24/98	1105	RTA00000340F.p.18.1	M00003751C:A04	287
4995	2/24/98	1080	RTA00000351R.g.06.1	M00003771D:G05	0
4996	2/24/98	478	RTA00000418F.h.08.1	M00001589B:E07	76401
4997	2/24/98	584	RTA00000418F.d.22.1	M00001573B:C06	75324
4998	2/24/98	493	RTA00000129A.d.1.2	M00001587A:F05	80058
4999	2/24/98	402	RTA00000420F.e.16.1	M00004110A:E04	63639
5000	2/24/98	1006	RTA00000129A.e.14.1	M00001587A:F08	80053
			244		30000

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
5001	2/24/98	285	RTA00000413F.i.02.1	M00004110D:A10	65857
5002	1/28/98	659	RTA00000185AR.k.23.2	M00001601A:E09	0
5003	2/24/98	122	RTA00000420F.f.06.1	M00004115D:D08	64812
5004	2/24/98	245	RTA00000195AF.d.20.1	M00004117A:D11	37574
5004	1/28/98	87	RTA00000195AF.d.20.1	M00004117A:D11	37574
5005	1/28/98	87	RTA00000195AF.d.20.1	M00004117A:D11	37574
5005	2/24/98	245	RTA00000195AF.d.20.1	M00004117A:D11	37574
5006	2/24/98	720	RTA00000129A.d.2.4	M00001587A:G06	80119
5007	2/24/98	687	RTA00000350R.g.10.1	M00001587C:C10	9026
5008	3/24/98	18	RTA00000522F.e.16.1	M00001590A:C08	75283
5009	1/28/98	447	RTA00000198AF.d.8.1	M00001587A:H03	0
5010	1/28/98	554	RTA00000186AR.e.07.4	M00001623D:G03	4175
5010	1/28/98	400	RTA00000186AR.e.07.3	M00001623D:G03	4175
5011	1/28/98	526	RTA00000185AF.e.20.1	M00001585A:D06	5865
5012	2/24/98	1	RTA00000404F.a.02.1	M00001589B:E12	9738
5013	1/28/98	530	RTA00000185AF.d.24.2	M00001582D:F05	0
5014	2/24/98	1096	RTA00000421F.a.06.1	M00001589C:A11	2385
5015	1/28/98	131	RTA00000185AF.d.11.2	M00001579D:C03	6539
5015	1/28/98	626	RTA00000185AR.d.11.1	M00001579D:C03	6539
5016	1/28/98	626	RTA00000185AR.d.11.1	M00001579D:C03	6539
5016	1/28/98	131	RTA00000185AF.d.11.2	M00001579D:C03	6539
5017	2/24/98	1020	RTA00000412F.p.06.1	M00004038B:H10	65485
5018	1/28/98	671	RTA00000185AR.d.08.1	M00001579C:E09	6562
5019	2/24/98	1240	RTA00000404F.a.18.1	M00001590B:B02	36267
5020	2/24/98	115	RTA00000418F.h.19.1	M00001590B:C05	0
5020	2/24/98	211	RTA00000404F.a.19.1	M00001590B:C07	38624
5022	1/28/98	455	RTA00000198AF.d.12.1	M00001589A:C01	21142
5023	1/28/98	622	RTA00000186AR.m.14.2	M00001649B:G12	9800
5024	2/24/98	958	RTA00000195AF.c.8.1	M00001678B:H01	0
5024	1/28/98	520	RTA00000195AF.c.8.1	M00001678B:H01	0
5025	1/28/98	520	RTA00000195AF.c.8.1	M00001678B:H01	0
5025	2/24/98	958	RTA00000195AF.c.8.1	M00001678B:H01	0
5026	1/28/98	690	RTA00000198R.I.21.1	M00001673A:A04	19194
5027	2/24/98	772	RTA00000413F.e.04.1	M00004090C:C07	64176
5028	2/24/98	834	RTA000004131.c.04.1	M00004090C:C10	0
5029	2/24/98	1154	RTA00000407F.m.09.2	M00001575B:G01	26814
5030	2/24/98	1203	RTA00000403F.ini.05.2	M00001973B:G07 M00004092C:B03	31033
5031	2/24/98	1203	RTA00000339F.b.17.1	M00004072C:B03	10020
5032	2/24/98	947	RTA000003391.5.17.1 RTA00000347F.g.08.1	M00001300D:E12	23121
5032	1/28/98	39	RTA000003471.g.08.11 RTA00000189AR.b.19.1	M00004030B:F03	5294
5033	2/24/98	239	RTA00000189AR.0.19.1	M00003832B:E01	5294
5034	1/28/98	39	RTA000003401.j.02.1 RTA00000189AR.b.19.1	M00003832B:E01	5294
	2/24/98	239	RTA00000189AR.b.19.1	M00003832B:E01	5294
5034	2/24/98		RTA000003401.j.02.1 RTA00000419F.d.16.1	M00003832B:E07	64357
5035		560			39179
5036	2/24/98	568	RTA00000403F.m.03.1 RTA00000419F.d.17.1	M00001573D:D10	64353
5037	2/24/98	191		M00003828B:F09	
5038	2/24/98	607	RTA00000420F.d.16.1	M00004103D:F10	64485 0
5039	2/24/98	1130	RTA00000354R.p.01.1	M00004104C:H12	
5040	2/24/98	710	RTA00000413F.g.24.1	M00004104D:A04	65481
5041	2/24/98	24	RTA00000423F.I.09.1	M00004118A:H08	9752

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
50.40	Appin	Appln			
5042	2/24/98	896	RTA00000423F.I.20.1	M00004105C:E09	12580
5043	2/24/98	1078	RTA00000423F.f.03.1	M00003829C:D10	63852
5044	1/28/98	558	RTA00000186AR.h.14.1	M00001632D:H07	0
5045	2/24/98	155	RTA00000413F.h.13.1	M00004107A:D01	65190
5046	2/24/98	926	RTA00000399F.k.20.1	M00001585C:D10	3003
5047	2/24/98	1194	RTA00000420F.e.05.1	M00004107D:E12	63908
5048	1/28/98	400	RTA00000186AR.e.07.3	M00001623D:G03	4175
5048	1/28/98	554	RTA00000186AR.e.07.4	M00001623D:G03	4175
5049	2/24/98	570	RTA00000405F.n.13.1	M00003824A:G10	23810
5050	2/24/98	334	RTA00000408F.p.05.1	M00001575B:B02	9649
5051	2/24/98	1029	RTA00000411F.f.04.1	M00003813A:G04	64526
5052	3/24/98	134	RTA00000424F.c.14.3	M00001476D:A09	76614
5053	2/24/98	396	RTA00000406F.e.21.1	M00003877D:G05	9090
5054	3/24/98	230	RTA00000424F.g.14.1	M00001572A:B06	74879
5055	2/24/98	617	RTA00000423F.f.23.1	M00003816C:E09	15390
5056	2/24/98	5	RTA00000408F.o.12.2	M00001572A:A10	78578
5057	2/24/98	689	RTA00000419F.p.03.1	M00004035A:G10	1937
5058	3/24/98	273	RTA00000424F.a.02.4	M00001575A:D06	78806
5059	2/24/98	241	RTA00000339F.d.13.1	M00001395C:F11	0
5060	3/24/98	237	RTA00000522F.c.01.1	M00001576A:C11	74938
5061	1/28/98	745	RTA00000183AF.m.11.1	M00001536D:G02	8927
5062	1/28/98	408	RTA00000183AR.I.15.1	M00001535C:E01	39383
5063	2/24/98	464	RTA00000195AF.c.12.1	M00003818B:G12	37582
5063	1/28/98	300	RTA00000195AF.c.12.1	M00003818B:G12	37582
5064	1/28/98	647	RTA00000197F.m.11.1	M00001530B:D10	16488
5065	2/24/98	464	RTA00000195AF.c.12.1	M00003818B:G12	37582
5065	1/28/98	300	RTA00000195AF.c.12.1	M00003818B:G12	37582
5066	3/24/98	395	RTA00000522F.d.06.1	M00001578B:A02	74809
5067	2/24/98	516	RTA00000339F.f.20.1	M00001399A:C03	6494
5068	2/24/98	890	RTA00000418F.j.19.1	M00001634D:D02	78399
5069	2/24/98	435	RTA00000340F.b.02.1	M00001503C:G05	10185
5070	3/24/98	175	RTA00000528F.d.18.1	M00001582C:E01	2684
5071	2/24/98	168	RTA00000411F.e.22.1	M00003812B:D07	63638
5072	2/24/98	1071	RTA00000404F.k.18.2	M00001635A:C06	5475
5073	2/24/98	189	RTA00000347F.a.13.1	M00001402D:F02	22446
5074	2/24/98	825	RTA00000404F.k.22.2	M00001635D:C12	39084
5074	2/24/98	364	RTA00000404F.k.22.1	M00001635D:C12	39084
5075	3/24/98	25	RTA00000425F.c.06.1	M00001585D:D11	78041
5076	3/24/98	186	RTA00000425F.c.07.1	M00001585D:F03	76042
5077	3/24/98	208	RTA00000424F.m.10.1	M00001586C:E06	34251
5078	2/24/98	420	RTA00000422F.b.16.1	M00003813B:A11	17045
5079	3/24/98	103	RTA00000424F.b.22.1	M00001530A:F11	72971
5079	3/24/98	88	RTA00000424F.b.22.4	M00001530A:F11	72971
5080	3/24/98	318	RTA00000523F.a.01.1	M00001671C:F11	74923
5081	2/24/98	676	RTA00000411F.g.21.1	M00003823D:G05	64500
5082	3/24/98	3	RTA00000528F.b.23.1	M00001479C:F10	1605
5083	2/24/98	1244	RTA00000418F.h.23.1	M00001591A:B08	75153
5084	2/24/98	321	RTA00000339F.c.21.1	M00001389C:A08	5325
5085	1/28/98	429	RTA00000196F.i.19.1	M00001390C:C11	39498
5085	2/24/98	925	RTA00000353R.h.10.1	M00001390C:C11	39498
			246		27770

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
5086	1/28/98	429	RTA00000196F.i.19.1	M00001390C:C11	39498
5086	2/24/98	925	RTA00000353R.h.10.1	M00001390C:C11	39498
5087	3/24/98	471	RTA00000528F.c.11.1	M00001386D:D12	1701
5088	2/24/98	103	RTA00000418F.j.12.1	M00001626C:G08	73316
5089	2/24/98	1148	RTA00000345F.d.23.1	M00001320D:E03	5862
5090	2/24/98	87	RTA00000403F.I.20.1	M00001573A:A06	18267
5091	3/24/98	427	RTA00000522F.b.08.1	M00001570D:E06	26915
5092	1/28/98	661	RTA00000198R.b.04.1	M000015702:200	0
5093	2/24/98	200	RTA00000339F.c.02.1	M00001381C:B08	12975
5094	2/24/98	1243	RTA000003337.c.02.1	M00001501C:B00	0
5095	1/28/98	750	RTA00000198AF.a.19.1	M00001050D:1110	o 0
5096	2/24/98	418	RTA00000410F.a.01.1	M00001501D:805	73354
5097	3/24/98	458	RTA00000476F.d.12.3	M00001631D:B10	74342
5097	3/24/98	454	RTA00000424F.d.12.3	M00001530D:E06	74342
5098	3/24/98	458	RTA00000424F.d.12.3	M00001530D:E06	74342
5098	3/24/98	454	RTA00000424F.d.12.3	M00001530D:E06	74342
5099	2/24/98	159	RTA000004241.d.12.2	M00001330D;200	2641
5100	2/24/98	539	RTA00000346F.m.15.1	M00004037B:C04	13553
5100	2/24/98	170	RTA000003401.m.13.1 RTA00000422F.n.08.1	M00004037B:E04	38655
5101	3/24/98	162	RTA00000422F.a.12.1	M00001052B:E05	33515
5102	2/24/98	315	RTA000003221.a.12.1 RTA00000419F.p.12.1	M00001307A:1103	13767
5103	2/24/98	119	RTA00000413F.k.05.1	M0000403771:E04 M00004036D:F02	37472
5105	3/24/98	12	RTA000004231.k.03.1 RTA00000522F.a.23.1	M00001570C:A05	38613
5106	3/24/98	103	RTA00000322F.a.23.1 RTA00000424F.b.22.1	M00001570C:R05	72971
5106	3/24/98	88	RTA00000424F.b.22.4	M00001530A:F11	72971
5100	2/24/98	21	RTA000004241.5.22.4 RTA00000411F.g.08.1	M00001330A:111	45815
5107	1/28/98	35	RTA000004111.g.oo.1	M00003022B:B04	7848
5100	3/24/98	39	RTA0000017777.ii.177.1 RTA00000527F.c.23.1	M00001871B:B17	37742
5110	1/28/98	43	RTA000003271.c.23.1 RTA00000179AF.c.14.3	M00003322C:7107 M00001392D:H04	0
5111	2/24/98	54	RTA00000399F.o.01.1	M00001595C:E01	3055
5112	2/24/98	63	RTA000003771.0.0111 RTA00000404F.1.20.2	M00001639B:H05	38638
5113	1/28/98	82	RTA00000183AF.I.18.1	M00001535D:C01	3484
5114	3/24/98	84	RTA000007037H10.7	M00003982B:C10	11332
5115	1/28/98	99	RTA00000184AF.d.8.1	M0000350225:010	4393
5116	2/24/98	99	RTA00000420F.m.19.1	M00005254D:B08	0
5117	2/24/98	100	RTA00000339F.o.23.1	M00001473C:D09	7801
5118	2/24/98	104	RTA00000421F.n.03.1	M00001675C:A04	1638
5119	2/24/98	105	RTA00000346F.d.08.1	M00001671A:A10	39955
5120	2/24/98	114	RTA00000341F.m.21.1	M00004051D:E01	0
5121	1/28/98	137	RTA00000181AF.m.4.3	M00001455A:E09	13238
5122	1/28/98	162	RTA00000201F.e.15.1	M00004444B:D11	9960
5123	1/28/98	170	RTA00000197AF.d.23.1	M00001453A:E11	16130
5124	1/28/98	206	RTA00000181AF.o.04.2	M00001457C:C12	22205
5125	1/28/98	209	RTA00000182AF.c.5.1	M00001464D:F06	6397
5126	2/24/98	215	RTA00000403F.j.18.1	M00001539D:E10	5790
5127	2/24/98	219	RTA00000419F.c.18.1	M00003819D:B11	41394
5128	1/28/98	229	RTA00000198AF.g.3.1	M00001615C:F03	0
5129	1/28/98	230	RTA00000185AR.b.18.1	M00001575B:C09	12171
5130	3/24/98	245	RTA00000522F.p.09.1	M00001670A:F09	75204
5131	2/24/98	258	RTA00000406F.k.15.1	M00003907C:C04	38549
• • •			247		

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
5132	1/28/98	262	RTA00000186AF.c.17.1	M00001619D:G05	8551
5133	1/28/98	269	RTA00000183AF.k.13.1	M00001534B:C12	0
5134	1/28/98	276	RTA00000198AF.j.15.1	M00001653B:E09	4369
5135	2/24/98	281	RTA00000411F.I.13.1	M00003857C:C09	43114
5136	1/28/98	284	RTA00000199F.d.10.2	M00003808C:B05	22049
5137	1/28/98	292	RTA00000199AF.m.18.1	M00003939C:F04	0
5138	1/28/98	297	RTA00000178AF,f.9.3	M00001371C:E09	7172
5139	2/24/98	301	RTA00000401F.m.23.1	M00003914C:C02	2801
5140	1/28/98	302	RTA00000186AF.d.1.2	M00001621C:C08	40044
5141	1/28/98	315	RTA00000199R.d.23.1	M00003815D:H09	37477
5142	2/24/98	315	RTA00000419F.p.12.1	M00004037A:E04	13767
5143	1/28/98	321	RTA00000181AR.b.21.1	M00001444C:D05	3266
5144	3/24/98	323	RTA00000524F.c.12.1	M00005218B:D09	0
5145	1/28/98	329	RTA00000186AF.b.9.1	M00001616C:F07	Ŏ
5146	1/28/98	334	RTA00000181AR.b.21.3	M00001444C:D05	3266
5147	2/24/98	334	RTA00000408F.p.05.1	M00001575B:B02	9649
5148	1/28/98	335	RTA00000182AF.e.3.2	M00001468B:H06	0
5149	1/28/98	336	RTA00000186AF.f.24.1	M000011629B:E06	0
5150	2/24/98	341	RTA00000412F.g.20.2	M00003972C:F08	25018
5151	2/24/98	343	RTA00000422F.g.21.1	M000035726:F00	17232
5152	1/28/98	347	RTA00000199F.b.03.2	M00003779B:E12	38340
5153	2/24/98	354	RTA00000404F.c.03.2	M00003777B:E12	39198
5154	1/28/98	361	RTA00000177AR.g.16.4	M00001347A:B10	13576
5155	1/28/98	364	RTA00000187AF.g.13.1	M000015471:510	2991
5156	2/24/98	377	RTA00000346F.i.01.1	M00003797A:D06	22260
5157	2/24/98	389	RTA00000411F.c.02.1	M000037771:D00	72852
5158	2/24/98	403	RTA00000403F.d.22.1	M00001473A:A07	10692
5159	1/28/98	407	RTA00000178AF.e.20.1	M00001370D:E12	3135
5160	1/28/98	422	RTA00000189AF.b.12.1	M00001370B:E12	17233
5161	2/24/98	429	RTA00000422F.c.17.1	M00004099D:F01	1360
5162	2/24/98	431	RTA00000399F.j.15.1	M00001578C:G06	1261
5163	1/28/98	439	RTA00000185AF.d.14.2	M00001579D:G07	8071
5164	2/24/98	448	RTA00000127A.a.3.1	M00001577B:G07	13232
5165	2/24/98	450	RTA00000118A.a.23.1	M00001395A:H02	3500
5166	1/28/98	451	RTA00000200AF.b.20.1	M00004043A:D02	40403
5167	2/24/98	455	RTA00000399F.d.23.1	M0000104371:D02	3310
5168	1/28/98	475	RTA00000187AR.m.3.3	M00001682C:B12	17055
5169	3/24/98	475	RTA00000427F.i.06.1	M00004097B:D03	41450
5170	3/24/98	477	RTA00000527F.I.21.1	M00003983D:H02	36439
5171	1/28/98	480	RTA00000181AF.o.08.2	M00003703D:H02	849
5172	3/24/98	480	RTA00000424F.d.17.3	M00001457C:H12	73958
5173	3/24/98	481	RTA00000523F.j.02.1	M000014557A:H10	62853
5174	1/28/98	483	RTA00000192AF.h.19.1	M0000303771:1110 M00004162C:A07	4642
5175	2/24/98	489	RTA00000406F.j.19.1	M00003906A:F12	1685
5176	1/28/98	501	RTA00000200R.k.11.1	M000037007:F03	9796
5177	2/24/98	502	RTA0000341F.d.08.1	M00004177C:103	0
5178	2/24/98	508	RTA000003411.d.00.1	M00005824C:D07	0
5179	1/28/98	510	RTA000004201.i.20.1 RTA00000178AF.n.23.1	M00003101C.E12 M00001387B:E02	3298
5180	1/28/98	511	RTA00000176AF.n.25.1	M00001387B.E02	3298 12498
5181	2/24/98	519	RTA00000190AI.g.10.1	M00001370B.A02	23136
· •	= ., , 0	<b>*</b> • •	248	00001030E110	23130

SEQ ID NO:	Filing Date of Priority	SEQ ID NO: in Priority	Sequence Name	Clone Name	Cluster ID
	Appln	Appln			
5182	2/24/98	524	RTA00000419F.f.23.1	M00003840D:H10	65002
5183	1/28/98	525	RTA00000198AF.c.7.1	M00001575D:G05	19181
5184	1/28/98	526	RTA00000185AF.e.20.1	M00001585A:D06	5865
5185	1/28/98	527	RTA00000198R.m.23.1	M00001684B:G03	38469
5186	1/28/98	529	RTA00000178AF.b.13.1	M00001364A:E11	3114
5187	1/28/98	530	RTA00000185AF.d.24.2	M00001582D:F05	0
5188	1/28/98	540	RTA00000179AF.b.10.3	M00001391D:D10	0
5189	1/28/98	541	RTA00000197AR.b.16.1	M00001445C:A08	0
5190	1/28/98	545	RTA00000196F.a.2.1	M00001338B:E02	3575
5191	2/24/98	547	RTA00000419F.h.02.1	M00003845D:G08	63985
5192	1/28/98	548	RTA00000179AF.f.23.3	M00001397B:G03	35258
5193	1/28/98	550	RTA00000183AF.g.14.1	M00001513D:A03	0
5194	2/24/98	555	RTA00000133A.d.22.1	M00001469A:G11	11797
5195	1/28/98	569	RTA00000196AF.1.23.1	M00001412A:E04	12052
5196	1/28/98	570	RTA00000183AF.a.19.2	M00001499A:A05	3788
5197	1/28/98	574	RTA00000192AF.f.3.1	M00004146C:C11	5257
5198	1/28/98	575	RTA00000186AF.I.12.2	M00001645A:C12	19267
5199	1/28/98	576	RTA00000196AF.c.7.1	M00001350B:G11	0
5200	2/24/98	579	RTA00000413F.m.16.1	M00004898C:F03	0
5201	1/28/98	580	RTA00000197F.a.12.1	M00001438B:B09	7895
5202	2/24/98	580	RTA00000403F.o.07.1	M00001579C:A01	39037
5203	2/24/98	584	RTA00000418F.d.22.1	M00001573B:C06	75324
5204	1/28/98	<b>58</b> 5	RTA00000198AF.n.18.1	M00001771A:A07	16715
5205	1/28/98	601	RTA00000184AF.i.10.2	M00001555A:B01	3744
5206	1/28/98	607	RTA00000200AF.k.12.1	M00004198B:D02	7359
5207	1/28/98	613	RTA00000177AF.k.18.4	M00001352C:A05	53729
5208	1/28/98	640	RTA00000190AF.f.5.1	M00003909A:H04	5015
5209	2/24/98	645	RTA00000422F.p.12.2	M00001661C:F10	9840
5210	1/28/98	654	RTA00000186AF.j.21.2	M00001639D:B07	22506
5211	1/28/98	680	RTA00000177AF.f.10.1	M00001345A:E01	6420
5212	1/28/98	699	RTA00000178AF.a.12.1	M00001362B:H06	0
5213	1/28/98	703	RTA00000198F.I.09.1	M00001664B:D06	3611
5214	1/28/98	704	RTA00000190AF.o.12.1	M00003972D:C09	3438
5215	1/28/98	723	RTA00000183AF.p.24.1	M00001543C:F01	3116
5216	2/24/98	733	RTA00000405F.d.18.1	M00001662C:B02	10494
5217 5218	1/28/98	739	RTA00000181AF.p.12.3	M00001460C:H02	22204
5219	1/28/98 2/24/98	742	RTA00000177AF.m.1.1	M00001353D:D10	14929
5220	2/24/98	774 775	RTA00000403F.e.24.1	M00001476B:D10	16432
5221	2/24/98	775 790	RTA00000405F.c.22.1	M00001660C:B06	39053
5222	2/24/98	816	RTA00000345F.n.08.1	M00001517A:B11	0
5223	2/24/98	829	RTA00000354R.n.04.1	M00003808C:B05 M00003867A:D12	22049
5224	2/24/98	851	RTA00000411F.m.11.1 RTA00000423F.d.07.1	M00003867A:D12 M00001678B:B12	73196
5225	2/24/98	871	RTA00000423F.d.07.1 RTA00000403F.f.23.1	M00001479C:E01	0
5226	2/24/98	877	RTA00000403F.f.23.1	M00001479C:E01 M00001654D:E12	39223
5227	2/24/98	914	RTA00000418F.m.22.1 RTA00000138A.m.15.1	M00001634D:E12 M00001624A:A03	74567
5228	2/24/98	923	RTA00000136A.d.19.1	M00001624A:A03 M00001548A:G01	41603 79474
5229	2/24/98	923 924	RTA00000120A.d.19.1 RTA00000354R.m.02.1	M00001348A:G01 M00003890B:C08	12766
5230	2/24/98	940	RTA00000334K.iii.02.1	M00003890B.C08 M00005260A:F04	0
5231	2/24/98	1005	RTA00000339F.e.17.1	M00003200A.F04 M00001397D:G08	7568
	J. 2. 17.70	.005	17.1000000000.17.1	111000013971.000	0061

SEQ ID NO:	Filing Date of Priority Appln	SEQ ID NO: in Priority Appln	Sequence Name	Clone Name	Cluster ID
5232	2/24/98	1013	RTA00000404F.b.18.1	M00001592A:H05	13669
5233	2/24/98	1037	RTA00000339F.I.12.1	M00001450A:G11	7711
5234	2/24/98	1055	RTA00000346F.a.04.1	M00001607B:C05	5382
5235	2/24/98	1070	RTA00000346F.n.22.1	M00004137A:D06	0
5236	2/24/98	1096	RTA00000421F.a.06.1	M00001589C:A11	2385
5237	2/24/98	1125	RTA00000118A.n.5.1	M00001451A:C10	0
5238	2/24/98	1128	RTA00000423F.a.02.3	M00001656B:A08	39210
5239	2/24/98	1129	RTA00000401F.m.07.1	M00003907D:F11	2893
5240	2/24/98	1136	RTA00000406F.c.05.1	M00003870A:H01	22077
5241	2/24/98	1142	RTA00000418F.i.06.1	M00001591B:B06	75151
5242	2/24/98	1145	RTA00000423F.k.21.2	M00003984D:B08	37499
5243	2/24/98	1149	RTA00000339F.b.02.1	M00001344B:F12	0
5244	2/24/98	1166	RTA00000347F.h.01.1	M00004040A:G12	12043
5245	2/24/98	1177	RTA00000126A.b.9.1	M00001547A:F11	81279
5246	2/24/98	1187	RTA00000120A.c.19.1	M00001464A:B03	81016
5247	2/24/98	1203	RTA00000413F.e.10.1	M00004092C:B03	31033
5248	2/24/98	1205	RTA00000419F.k.05.1	M00003871C:E04	11757
5249	2/24/98	1230	RTA00000399F.j.14.1	M00001578C:F05	16942
5250	2/24/98	1233	RTA00000418F.1.02.1	M00001641C:C05	39316
5251	2/24/98	1248	RTA00000419F.o.07.1	M00003986C:E09	14059
5252	2/24/98	1261	RTA00000404F.m.17.2	M00001643B:E05	0

Table 2

Table						····	
		Nearest Neighbor lastN vs. Genbank)		Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID							
2503	AB011149	Homo sapiens mRNA for KIAA0577 protein, complete cds	0	3043678	(AB011149) KIAA0577 protein [Homo sapiens]	1e-096	
2504	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
2505	Z59973	H.sapiens CpG DNA, clone 184b10, forward read cpg184b10.ft1a.	1e-009	<none></none>	<none></none>	<none></none>	
2506	AJ000742	Homo Sapiens hisH1 gene, 5' UTR	2e-016	<none></none>	<none></none>	<none></none>	
2507	U10324	Human nuclear factor NF90 mRNA, complete cds.	3e-009	1729881	TETRACYCLINE RESISTANCE PROTEIN, CLASS H (TETA(H)) >gi 392873 (U00792) tetracycline resistance protein [Pasteurella multocida]	9.3	
2508	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-010	1890128	(U89949) folate binding protein [Sus scrofa]	7.3	
2509	M15657	Human aldolase B (ALDOB) gene, exons 2 through 6.	0.002	<none></none>	<none></none>	<none></none>	
2510	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-008	<none></none>	<none></none>	<none></none>	
2511	U39722	Mycoplasma genitalium section 44 of 51 of the complete genome	0.043	2773162	(AF039595) sulfonylurea receptor 1B [Rattus norvegicus]	10	
2512	AB012174	Homo sapiens DNA, anonymous heat-stable fragment RP7-1B	7e-017	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		Nearest Neighbor			
	(E	BlastN vs. Genbank)		(BlastX	vs. Non-Redundant	Proteins)	
SEQ ID			P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2513		Homo sapiens DNA, anonymous heat-stable fragment RP7-1B	7e-017	<none></none>	<none></none>	<none></none>	
2514		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7e-007	2984585	(AC004472) P1.11659_4 [Homo sapiens]	le-013	
2515		Homo sapiens UDP-glucose dehydrogenase (UGDH) mRNA, complete cds	0	3127127	(AF061016) UDP- glucose dehydrogenase [Homo sapiens] dehydrogenase [Homo sapiens]	- 7e-035	
2516	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-005	2983872	(AE000742) putative protein [Aquifex aeolicus]	1.5	
2517	X13293	Human mRNA for B-myb gene	3e-019	127584	MYB-RELATED PROTEIN B (B- MYB) human >gi 29472 (X13293) B-myb protein (AA 1- 700) [Homo sapiens]	0.0002	
2518	Y10183	H.sapiens mRNA for MEMD protein	0	3882036	(AJ010405) hypothetical protein	2.5	
2519		Human glucokinase (GCK) gene, exon 1 and 5' flanking region.	4e-023		HYPOTHETICAL OUTER MEMBRANE USHER PROTEIN IN RIBB-GLGS INTERGENIC REGION PRECURSOR	7.8	
2520		Gallus gallus fragment of gene X of ovalbumin family coding for the first leader exon.	4.4	<none></none>	<none></none>	<none></none>	

	1	Nearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2521	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-006	3800811	(AF072251) methyl-CpG binding protein 2 [Mus musculus]	6.9	
2522	Y09540	H.sapiens AHSG gene, partial	2e-007	2135357	HLA class I alpha chain - human (fragment) sapiens]	3.1	
2523	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	3e-007	<none></none>	<none></none>	<none></none>	
2524	D87438	Human mRNA for KIAA0251 gene, partial cds	1e-011	<none></none>	<none></none>	<none></none>	
2525	AE001203	Treponema pallidum section 19 of 87 of the complete genome	0.42	<none></none>	<none></none>	<none></none>	
2526	U47322	Cloning vector DNA, complete sequence.	2e-036	987050	(X65335) lacZ gene product [unidentified cloning vector]	4e-008	
2527	M97287	Human MAR/SAR DNA binding protein (SATB1) mRNA, complete cds. > :: gb 158691 158691 Sequence 1 from patent US 5652340	0	41.7747	DNA-BINDING PROTEIN SATB1 (SPECIAL AT- RICH SEQUENCE BINDING PROTEIN 1) protein SATB1 - human >gi 337811 (M97287) putative [Homo sapiens]	2e-009	
2528	AF005355	Oryctolagus cuniculus translation initiation factor eIF2C mRNA, complete cds	1e-094	3253159	(AF005355) translation initiation factor eIF2C	2e-084	
2529	L16978	Anadara trapezia beta globin gene, complete cds.	0.11	<none></none>	<none></none>	<none></none>	
2530	M24191	Human beta globulin pseudogene, clone 46B	0.013	3878519	(Z92806) K10G4.7 [Caenorhabditis elegans]	0.6	

	Nearest Neighbor			Nearest Neighbor			
CEO		lastN vs. Genbank)			vs. Non-Redundant 1		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2531	AF047611	Euroglyphus maynei group 1 allergen Eur m 1 0102	0.12	<none></none>	<none></none>	<none></none>	
2532	AE001372	Plasmodium falciparum chromosome 2, section 9 of 73 of the complete sequence	0.002	<none></none>	<none></none>	<none></none>	
2533	J04700	Homo sapiens calcium-dependent protease large subunit (CANPmL) gene, promoter region and exon 1.	0.014	<none></none>	<none></none>	<none></none>	
2534	AF038958	Homo sapiens synaptic glycoprotein SC2 spliced variant mRNA, complete cds	4e-086	2144098	SC2 - rat >gi 256994 bbs 11 5268 (S45663) SC2=synaptic glycoprotein [rats, brain, Peptide, 308 aa]	1e-033	
2535	L13434	Human chromosome 3p21.1 gene sequence, complete cds.	8e-008	1085432	mucin (clone PGM-2A) - pig	4.3	
2536	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-011	3873713	(Z74026) cDNA EST yk452h4.3 comes from this gene; cDNA EST yk452h4.5 comes from this gene	4e-010	
2537		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-011	<none></none>	<none></none>	<none></none>	
2538		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-006	·	type la hair keratin a3 [human, Peptide, 404 aa] >gi 3724101 gnl PI D e1330425 (Y16788) keratin, type I [Homo sapiens]	1.9	

	N	Nearest Neighbor		Nearest Neighbor			
	(B)	astN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SÉQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2539	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0005	<none></none>	<none></none>	<none></none>	
2540	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
2541	U79248	Human clone 23826 mRNA sequence	6e-005	<none></none>	<none></none>	<none></none>	
2542	D44598	Saccharomyces cerevisiae chromosome VI phage 4121	1e-010	2828280	(AL021687)   putative protein   [Arabidopsis thaliana]   >gi 2832633 gnl PI   D e1249651   (AL021711)   putative protein   [Arabidopsis thaliana]	6e-060	
2543	X64037	H.sapiens mRNA for RNA polymerase II associated protein RAP74	0	35871	(X64002) RAP74 [Homo sapiens] >gi 228483 prf  18 04353A transcription factor RAP74 [Homo sapiens]	4e-049	
2544	M18857	A.californica nuclear polyhedrosis virus ORFs encoding a delayed early protein and two late protein, complete cds.	0.38	3169096	(AL023706) hypothetical protein	3e-029	
2545	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-006	<none></none>	<none></none>	<none></none>	
2546	L22403	Homo sapiens DNA sequence, repeat region.	1e-020	<none></none>	<none></none>	<none></none>	
2547	L22403	Homo sapiens DNA sequence, repeat region.	1e-020	<none></none>	<none></none>	<none></none>	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2548	D38417	Mouse mRNA for arylhydrocarbon receptor, complete cds	3e-028	<none></none>	<none></none>	<none></none>	
2549	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>	
2550	X04754	Drosophila yolk polypeptide gene YP3	1e-012	2500649	PROBABLE RNA 3'-TERMINAL PHOSPHATE CYCLASE (RNA- 3'-PHOSPHATE CYCLASE) (RNA CYCLASE)	1e-022	
2551	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-011	<none></none>	<none></none>	<none></none>	
2552	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>	
2553	U49169	Dictyostelium discoideum V- ATPase A subunit (vatA) mRNA, complete cds	0.13		VERY HYPOTHETICAL 13.2 KD PROTEIN IN PTC3-SAS3 INTERGENIC REGION >gi 626813 pir  S4 5788 probable membrane protein YBL053w - yeast (Saccharomyces cerevisiae) >gi 536079 (Z35814) ORF YBL053w	1.1	
2554		Chicken protein p54 (ets-1) mRNA, complete cds.	1.1	2078531	(U89506) Mlark [Mus musculus]	5.6	

		Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2555	U73664	Human t(11;14)(q13;q32) breakpoint junction sequence	0.37	2909381	(Y16569) ORF [Mycobacterium tuberculosis]	3.3	
2556	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-006	3025166	PUTATIVE NUCLEOSIDE TRANSPORTER YEGT >gi 1736823 gnl PI D d1016692 (D90848) Nucleoside permease NupG (Nucleoside- transport system protein NupG). [Escherichia coli] >gi 1788415 (AE000299) putative nucleoside permease protein [Escherichia coli]	1.4	
2557	U09210	Human vesicular acetylcholine transporter mRNA, complete cds.	0.041	3176395	(AB015041) PIF1 [Caenorhabditis elegans]	1e-006	
2558	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.002	540271	(U14635) similar to GABA and glycine receptors	1e-020	
2559	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-007	<none></none>	<none></none>	<none></none>	
2560	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-010	<none></none>	<none></none>	<none></none>	
2561	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	1788739	(AE000327) orf, hypothetical protein [Escherichia coli]	6.8	

		Nearest Neighbor			Nearest Neighbor			
050		lastN vs. Genbank)			s. Non-Redundant P			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
2562	AF073710	Homo sapiens regulator of G-protein signaling 9 mRNA, complete cds	1e-013	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.38		
2563	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.1		
2564	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-007	<none></none>	<none></none>	<none></none>		
2565	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-015	<none></none>	<none></none>	<none></none>		
2566	M98502	Mus musculus protein encoding twelve zinc finger proteins (pMLZ-4) mRNA, complete cds.	2e-017	2370153	(Y13374) putative prenylated protein prenylated protein [Homo sapiens] >gi 3360403 (AF052096) putative prenylated protein [Homo sapiens]	7.3		
2567		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-009	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.5		
2568		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-008		(D76414) ppGpp hydrolase [Staphylococcus aureus]	2.4		
2569		H.sapiens mRNA for alpha- centractin	4e-085		(AL021930) hypothetical protein Rv0290	1.4		
2570		Human DNA sequence from cosmid cN85E10 on chromosome 22q11.2-qter	8e-009	1082778	secretory phospholipase A2 receptor precursor, transmembrane form - human >gi 862375	7.1		

	1	Nearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2571	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0005	2583019	(AF022724) ARIX homeodomain protein [Homo sapiens]	0.64	
2572	L19637	Arabidopsis thaliana adenine phosphoribosyltra nsferase (apt) gene, complete cds.	0.12	<none></none>	<none></none>	<none></none>	
2573	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-008	388057	(L22982) merozoite surface protein-1 [Plasmodium chabaudi]	6.9	
2574	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.0005	3913436	PROBABLE ATP- DEPENDENT RNA HELICASE A (NUCLEAR DNA HELICASE II) (NDH II)	9.5	
2575	AJ005698	Homo sapiens mRNA for poly(A)-specific ribonuclease	3e-011	3776076	(AJ005698) poly(A)-specific ribonuclease [Homo sapiens]	0.28	
2576	Z96602	H.sapiens telomeric DNA sequence, clone 3QTEL015, read 3QTELO0015.se	2e-006	2407641	(AF018956) neuropilin [Homo sapiens]	1.4	
2577	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012	3880672	(AL032633) cDNA EST EMBL:T00127 comes from this gene; cDNA EST EMBL:T01189 comes from this gene [Caenorhabditis elegans]	0.82	
2578	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012	2088843	(AF003386) F59E12.9 gene product [Caenorhabditis elegans]	3.5	

		Nearest Neighbor		Nearest Neighbor			
250		lastN vs. Genbank)	<b>-</b>	(BlastX v	s. Non-Redundant P		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2579		Mycobacterium gordonae IS1511 transposase and Tn554 tpna transposase homolog genes, complete cds	3.8	<none></none>	<none></none>	<none></none>	
2580	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	9.6	
2581	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-013	<none></none>	<none></none>	<none></none>	
2582	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-008	<none></none>	<none></none>	<none></none>	
2583	U85193	Human nuclear factor I-B2 (NFIB2) mRNA, complete cds	2e-038	<none></none>	<none></none>	<none></none>	
2584	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.2	
2585	U67532	Methanococcus jannaschii section 74 of 150 of the complete genome	0.005	1938410	(U97000) No definition line found [Caenorhabditis elegans]	4.5	
2586	X65319	Cloning vector pCAT-Enhancer	3e-081	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-015	
2587		Homo sapiens mRNA for hepatocyte growth factor activator inhibitor type 2, complete cds	e-103	2065529	(U78095) bikunin [Homo sapiens]	3e-025	

	N	Nearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2588	U95 <b>0</b> 94	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-006	3152559	(AC002986) Similarity to A. thaliana gene product F21M12.20, gb AC000132. EST gb Z25651 comes from this gene. [Arabidopsis thaliana]	6e-008	
2589	X82829	B.taurus mRNA for nuclear DNA helicase II	9e-009	1353239	(U10245) putative RNA helicase A [Arabidopsis thaliana]	3e-017	
2590	AE001366	Plasmodium falciparum chromosome 2, section 3 of 73 of the complete sequence	0.047	<none></none>	<none></none>	<none></none>	
2591	D78572	House mouse; Musculus domesticus mRNA for membrane glycoprotein, complete cds > :: dbj E12950 E129 50 cDNA GA3- 43 encoding novel polypeptide which appear when differentiate from embryo-tumor cell P19 to nerve cell	1e-041	1545807	(D78572) membrane glycoprotein [Mus musculus]	1e-026	
2592	M77130	H.sapiens (clone B7) hY4 Ro RNA pseudogene.	4e-011	629174	cellulose 1,4-beta-cellobiosidase (EC 3.2.1.91) - Clostridium thermocellum >gi 530014 (X80993) cellulose 1,4-beta-cellobiosidase [Clostridium thermocellum]	1.5	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2593	M34661	Human chaperonin (HSP60) non- functional pseudogene 3.	1	<none></none>	<none></none>	<none></none>	
2594	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-006	1723894	HYPOTHETICAL GTP-BINDING PROTEIN IN SEH1-PRP20 INTERGENIC REGION >gi 2131584 pir  S 64106 hypothetical protein YGL099w - yeast (Saccharomyces cerevisiae) >gi 1322637 gnl P1 D e243302 (Z72621) ORF YGL099w [Saccharomyces cerevisiae]	9e-015	
2595	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	9e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	0.16	
2596	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.4	
2597		Rattus norvegicus FGF receptor activating protein FRAG1 (FRAG1) mRNA, complete cds	0		(U57715) FGF receptor activating protein FRAG1 [Rattus norvegicus]	2e-088	
2598		H.sapiens CpG DNA, clone 167d8, forward read cpg167d8.ft1b.	0.0002		(U52513) ISG family member [Homo sapiens]	2.4	

	N	Nearest Neighbor	· · · · · · · · · · · · · · · · · · ·		Nearest Neighbor	
		lastN vs. Genbank)			s. Non-Redundant Pr	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
2599	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-008	<none></none>	<none></none>	<none></none>
2600	AF022158	Homo sapiens KRAB domain zinc finger protein	3e-010	2507553	ZINC FINGER PROTEIN 33A (ZINC FINGER PROTEIN KOX31) (KIAA0065) (HA0946) Kruppel-related. [Homo sapiens]	le-016
2601	¥07660	M.tuberculosis accBC gene	2e-068	465847	HYPOTHETICAL 66.5 KD PROTEIN F02A9.5 IN CHROMOSOME III >gi 280542 pir  S2 8313 hypothetical protein F02A9.5 - Caenorhabditis elegans Genefinder; similar to Propionyl-CoA carboxylase beta chain; cDNA EST EMBL:M89018 comes from this gene; cDNA EST EMBL:D2806	8e-075
2602	S51858	MO25 gene [mice, embryos, mRNA, 2322 nt]	0	547911	MO25 PROTEIN  >gi 2143483 pir  I5 7997 hypothetical calcium-binding protein - mouse protein [mice, embryos, Peptide, 341 aa] [Mus sp.]	e-119
2603	AB018345	Homo sapiens mRNA for KIAA0802 protein, partial cds	e-131	3882325	(AB018345) KIAA0802 protein [Homo sapiens]	3e-053

	Nearest Neighbor				Nearest Neighbor		
		lastN vs. Genbank)			s. Non-Redundant P	roteins)	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2604	L41560	Homo sapiens (clones HGPCD2 and HGPCD15) pterin-4a- carbinolamine dehydratase (PCBD) gene, complete cds.	2e-005	<none></none>	<none></none>	<none></none>	
2605	AJ000041	Homo sapiens mRNA for HOXC11	e-180	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.001	
2606	U55939	Expression vector pVP-Nco, complete sequence.	4e-043	987050	(X65335) lacZ gene product [unidentified cloning vector]	9e-009	
2607	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-014	124139	TRANS-ACTING TRANSCRIPTIO NAL PROTEIN ICP0 >gi 73901 pir  WZ BE61 gene 61 protein - human herpesvirus 3 >gi 60050 (X04370) ORF 61 (AA1-467) [Human herpesvirus 3] >gi 228664 prf  18 08271A gene 61 protein	0.48	
2608	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>	
2609	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-013	3878130	(Z83112) predicted using Genefinder	9	
2610		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.3	

Total plane			Nearest Neighbor			Nearest Neighbor			
D   D   D   D   D   C   C   C   C   C				15777					
For alpha-2	ID		DESCRIPTION						
DNA, clone   S9g12, forward read   read   cyps9g12, forward read   cyps9g12.ftla	2611	D14965	for alpha-2 tubulin, complete cds	3.7			<none></none>		
Oxide synthase (NOS) mRNA, complete cds	2612	Z61840	DNA, clone 59g12, forward read	2e-080	3581872	putative integral membrane protein [Streptomyces coelicolor]			
XL-INCENP (XL-INCENP) mRNA, complete cds   2615   AF054625   Reporter vector pSRF-Luc, complete sequence   1e-011   2072296   (U95098) mitotic phosphoprotein 44 [Xenopus laevis]   1e-011   2072296   (U95098) mitotic phosphoprotein 44 [Xenopus laevis]   1e-012   2072296   (U95098) mitotic phosphoprotein 44 [Xenopus laevis]   1e-013   1065484   (U40415) similar to S. cerevisiae LAG1 (SP:P38703)   2621   U95094   Xenopus laevis sequence   1e-009   Xenopus laevis   1e-009   Xenopus laevis   1e-009   Xenopus laevis   1e-009   2072296   (U95098) mitotic phosphoprotein 44 [Xenopus laevis]   2620   AF053461   Reporter vector pCRE-Luc, complete sequence   1e-013   1065484   (U40415) similar to S. cerevisiae LAG1 (SP:P38703)   2621   U95094   Xenopus laevis   1e-009   Xenopus laevis   XL-INCENP (XL-INCENP)   XL-INCENP	2613	U59924	oxide synthase (NOS) mRNA,	1.1	<none></none>	<none></none>	<none></none>		
pSRF-Luc, complete sequence  2616 U95094 Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds  2617 AF031924 Homo sapiens homeobox transscription factor barx2  2618 U95102 Xenopus laevis mitotic phosphoprotein 44 [Xenopus laevis]  2619 U95094 Xenopus laevis XL-INCENP) mRNA, complete cds  2619 U95094 Xenopus laevis XL-INCENP) mRNA, complete cds  2620 AF053461 Reporter vector pCRE-Luc, complete sequence  2621 U95094 Xenopus laevis nacon plete cds  2621 U95094 Xenopus laevis required in the posphopus laevis phosphoprotein 44 [Xenopus laevis]  2621 U95094 Xenopus laevis required in the phosphoprotein 44 [Xenopus laevis]  2622 AF053461 Reporter vector pCRE-Luc, complete sequence  2623 AF053461 Reporter vector pCRE-Luc, complete sequence  2624 U95094 Xenopus laevis required in the phosphoprotein 44 [Xenopus laevis]  2625 AF053461 Reporter vector pCRE-Luc, complete sequence  2626 AF053461 Reporter vector pCRE-Luc, complete sequence  2627 Sequence Sequence   Sequence	2614	U95094	XL-INCENP (XL-INCENP) mRNA, complete	2e-006			<none></none>		
XL-INCENP (XL-INCENP)   mRNA, complete cds   2072296   (U95098) mitotic phosphoprotein 44 [Xenopus laevis]   5.5	2615	AF054625	pSRF-Luc, complete	4e-065	987050	gene product [unidentified	3e-015		
homeobox transcription factor barx2  2618 U95102 Xenopus laevis mitotic phosphoprotein 44 [Xenopus laevis]  2619 U95094 Xenopus laevis xL-INCENP (XL-INCENP) mRNA, complete cds  2620 AF053461 Reporter vector pCRE-Luc, complete sequence  2621 U95094 Xenopus laevis 1e-009   CNONE    1005098 mitotic phosphoprotein 44 [Xenopus laevis]    2620 AF053461 Reporter vector pCRE-Luc, complete sequence   CNONE    2621 U95094 Xenopus laevis   1e-009   CNONE    2621 U95094   Xenopus laevis   1e-009   CNONE    2621 V95094   Xenopus laevis   1e-009   CNONE    2621 V95094   Xenopus laevis   1e-009   CNONE    2620   Xenopus laevis   1e-009   CNONE    2621 V95094   Xenopus laevis   1e-009   CNONE    2622 V95094   Xenopus laevis   1e-009   CNONE    2623 V95094   V9	2616	U95094	XL-INCENP (XL-INCENP) mRNA, complete	1e-011	2072296	phosphoprotein 44	3.1		
mitotic phosphoprotein 44 [Xenopus laevis]  2619 U95094 Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds  2620 AF053461 Reporter vector pCRE-Luc, complete sequence complete sequence	2617	AF031924	homeobox transcription	e-161	2072296	phosphoprotein 44	5.5		
XL-INCENP (XL-INCENP) mRNA, complete cds  2620 AF053461 Reporter vector pCRE-Luc, complete sequence (SP:P38703)  2621 U95094 Xenopus laevis XL-INCENP (XL-INCENP) (XL-INCENP)	2618	U95102	mitotic phosphoprotein 90 mRNA, complete cds			phosphoprotein 44 [Xenopus laevis]			
pCRE-Luc, complete sequence to S. cerevisiae LAG1 (SP:P38703)  2621 U95094 Xenopus laevis 1e-009 <none> <none> <none></none></none></none>	2619	U95094	XL-INCENP (XL-INCENP) mRNA, complete cds			phosphoprotein 44 [Xenopus laevis]			
XL-INCENP (XL-INCENP)			pCRE-Luc, complete sequence			to S. cerevisiae LAG1 (SP:P38703)			
265	2621	U95094	XL-INCENP (XL-INCENP)		<none></none>	<none></none>	<none></none>		

		Nearest Neighbor		Nearest Neighbor		
220		astN vs. Genbank)		,	s. Non-Redundant Pr	•
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE
		cds				
2622	AF013758	Homo sapiens polyadenylate binding proteininteracting protein-1 (PAIP1) mRNA, complete cds	0	3046900	(AF013758) polyadenylate binding protein- interacting protein-1 [Homo sapiens]	3e-072
2623	D29808	Human mRNA for T-cell acute lymphoblastic leukemia associated antigen 1 (TALLA-1), complete cds	0.014	<none></none>	<none></none>	<none></none>
2624	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-013	2690005	(AE000794) B. burgdorferi predicted coding region BBF30	7.6
2625	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.041	<none></none>	<none></none>	<none></none>
2626	Z12112	pWE15A cosmid vector DNA	2e-067	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-008
2627	AB018326	Homo sapiens mRNA for KIAA0783 protein, complete cds	0	3882287	(AB018326) KIAA0783 protein [Homo sapiens]	1e-073
2628	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.4
2629	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-016	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.4

	1	Nearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)			s. Non-Redundant Pr		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
2630	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	1001632	(D64002) hypothetical protein	3.2	
2631	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	0.29	
2632	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>	
2633	X05167	Barley gene for thiol protease aleurain	0.13	1065515	(U40420) weak similarity to procollagen alpha chain 1(V) chain [Caenorhabditis elegans]	9e-018	
2634	Z96177	H.sapiens telomeric DNA sequence, clone 10QTEL040, read 10QTELOO040.s	2e-060	987050	(X65335) lacZ gene product [unidentified cloning vector]	5e-010	
2635	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	123432	ZERKNUELLT PROTEIN 1 (ZEN-1)	3.4	
2636	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	123432	ZERKNUELLT PROTEIN 1 (ZEN-1)	3.4	
2637	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-013	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	1.5	
2638	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-013	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	1.5	

	]	Nearest Neighbor			Nearest Neighbor	
		lastN vs. Genbank)			s. Non-Redundant P	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
2639	AF103734	Sindbis-like virus YN87448, complete genome	3.5	<none></none>	<none></none>	<none></none>
2640	M27280	H.influenzae lic-1 operon licA, licB, licC and licD genes, encoding outer membrane lipopolysaccharid e phase variation, complete cds.	3.4	2529686	(AC002535) putative G-beta- repeat containing protein, 5' partial [Arabidopsis thaliana]	6e-018
2641	AF103734	Sindbis-like virus YN87448, complete genome	3.5	<none></none>	<none></none>	<none></none>
2642	X05167	Barley gene for thiol protease aleurain	0.13	1065515	(U40420) weak similarity to procollagen alpha chain 1(V) chain [Caenorhabditis elegans]	9e-018
2643	L76159	Homo sapiens FRG1 mRNA, complete cds.	4e-032	1246233	(L76159) FRG1 gene product [Homo sapiens]	1e-005
2644	AF086047	Homo sapiens full length insert cDNA clone YX84A05	3e-008	628916	Delta-12 desaturases - Anabaena variabilis desaturase [Anabaena variabilis]	6
2645	AF086136	Homo sapiens full length insert cDNA clone ZA89C06	4e-021	3849864	(AJ007629) pall protein [Emericella nidulans]	4.6
2646	AB004818	Homo sapiens mRNA for ENX- 2, complete cds	1e-011	<none></none>	<none></none>	<none></none>
2647	D87686	Homo sapiens mRNA for KIAA0017 protein, complete cds	e-165	3540219	(D87686) KIAA0017 protein [Homo sapiens]	5e-054
2648	Z49218	S.cerevisiae chromosome XIII cosmid 7056	0.002	2984715	(AF053957) dynamin associated protein isoform Dap160-1	0.33

	Nearest Neighbor			Nearest Neighbor		
	(B	lastN vs. Genbank)		(BlastX v	s. Non-Redundant P	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
2649	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	868241	(U29488) C56C10.3 gene product [Caenorhabditis elegans]	7e-030
2650	D38417	Mouse mRNA for arythydrocarbon receptor, complete cds		<none></none>	<none></none>	<none></none>
2651	L29252	Human (clone D13-2) L-iditol-2 dehydrogenase gene, exon 4, exon 5, exon 6 and exon 7.	0.35	<none></none>	<none></none>	<none></none>
2652	U29171	Human casein kinase I delta mRNA, complete cds >	3e-063	1176666	HYPOTHETICAL 139.1 KD PROTEIN C08B11.3 IN CHROMOSOME II >gi 3874171 gnl PI D e1343795 proteins; cDNA EST EMBL:T01154 comes from this gene; cDNA EST EMBL:T02016 comes from this gene; cDNA EST EMBL:D34307 comes from this gene; cDNA EST EMBL:D34307 comes from this gene; cDNA EST EMBL:D37339 comes from	6.8
2653	U63648	Mus musculus p160 myb- binding protein (P160) mRNA, complete cds	6e-058	2645205	(U63648) p160 myb-binding protein [Mus musculus]	2e-038
2654	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.9
2655		H.sapiens whn gene, exon la and lb	0.12	<none></none>	<none></none>	<none></none>

		Nearest Neighbor		Nearest Neighbor			
CUA		lastN vs. Genbank)			s. Non-Redundant I		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2656	D26179	Rat mRNA for V-1 protein, complete cds	2e-005	3879121	(Z70310) predicted using Genefinder; Similarity to Mouse ankyrin (PIR Acc. No. S37771); cDNA EST EMBL:T01923 comes from this gene; cDNA EST EMBL:D32335 comes from this gene; cDNA EST EMBL:D32723 comes from this gene; cDNA EST EMBL:D32723 comes from this	8e-087	
2657	U67518	Methanococcus jannaschii section 60 of 150 of the complete genome	1.2	3876465	(Z81071) predicted using Genefinder; Similarity to Human small nuclear ribonucleoprotein E cDNA EST yk375g7.5 comes from this gene; cDNA EST yk435f5.3 comes from this gen	бе-011	
2658	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-008	<none></none>	<none></none>	<none></none>	
2659		Mus musculus ROSA 26 transcription AS ROSA26AS mRNA, complete cds	0		(U83176) ROSA26AS [Mus musculus]	e-101	
2660		Mus musculus GARP34 mRNA, complete cds	2e-065		(AB018374) GARP34 [Mus musculus]	7e-010	
2661		Mus musculus GARP34 mRNA, complete cds	2e-065		(AB018374) GARP34 [Mus musculus]	7e-010	

	1	Nearest Neighbor		Nearest Neighbor			
		astN vs. Genbank)			s. Non-Redundant Pr		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
2662	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	4e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	4.6	
2663	AL022168	Human DNA sequence from clone U247E12 on chromosome Xq22-23, complete sequence [Homo sapiens]	8e-008	<none></none>	<none></none>	<none></none>	
2664	M10277	Human cytoplasmic beta- actin gene, complete cds.	5e-063	<none></none>	<none></none>	<none></none>	
2665	D83769	Homo sapiens DNA, corresponding sequence for DHFR	5e-014	763429	(U22961) putative ORF; similar in part to the product encoded by human glycerol-3-phosphate dehydrogenase mRNA, GenBank Accession Number L34041; Method: conceptual translation supplied by author [Homo sapiens]	5.9	
2666	U15426	Human anonymous mRNA sequence with CCA repeat region.	3e-071	1065484	(U40415) similar to S. cerevisiae LAG1 (SP:P38703)	3e-015	
2667	AF032900	Homo sapiens timing protein CLK-1 mRNA, complete cds	0	3811295	(AF032900) timing protein CLK-1; ubiquinone biosynthesis protein COQ7 [Homo sapiens]	3e-061	
2668	L39210	Homo sapiens inosine monophosphate dehydrogenase type II gene, complete cds	e-111	2887425	(AB007885) KIAA0425 [Homo sapiens]	3e-036	

		Nearest Neighbor	<u> </u>		Nearest Neighbor	
		lastN vs. Genbank)		(BlastX v	s. Non-Redundant P	roteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
2669	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7.00E-07	<none></none>	<none></none>	<none></none>
2670	X93016	S.scrofa mRNA for cytosolic malic enzyme NADP-dependent	5e-045	101706	hypothetical protein 2 - yeast (Saccharomyces kluyveri) plasmid pSKL >gi 4870 (X54850) ORF 2, has similarity to DNA polymerase [Saccharomyces kluyveri]	7.7
2671	J03068	Human DNF1552 (lung) mRNA, complete cds.	0.041	2414623	(Z99259) putative phosphotransferas e	7e-021
2672	X81372	H.sapiens mRNA for biphenyl hydrolase-related protein	2e-016	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.0001
2673	AB012130	Homo sapiens SBC2 mRNA for sodium bicarbonate cotransporter2, complete cds	0.00E+00	3097316	(AB012130) sodium bicarbonate cotransporter2 [Homo sapiens]	3e-045
2674	D83769	Homo sapiens DNA, corresponding sequence for DHFR	5e-014	763429	(U22961) putative ORF; similar in part to the product encoded by human glycerol-3-phosphate dehydrogenase mRNA, GenBank Accession Number L34041; Method: conceptual translation supplied by author [Homo sapiens]	5.9
2675		Human mRNA for KIAA0080 gene, partial cds	1e-022	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.002
2676		Human mRNA for KIAA0080 gene, partial cds	le-022	728831	IIII ALU SUBFAMILY J WARNING	0.002

	N	Nearest Neighbor		Nearest Neighbor			
		astN vs. Genbank)		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	s. Non-Redundant Pr		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
					ENTRY		
2677	AF072810	Homo sapiens transcription factor WSTF mRNA, complete cds	0	4049922	(AF072810) transcription factor WSTF [Homo sapiens]	1e-070	
2678	U41767	Human metargidin precursor mRNA, complete cds	e-130	1235674	(U41767) metargidin precursor [Homo sapiens]	1.00E-02	
2679	L81613	Homo sapiens (subclone 4_c7 from P1 H17) DNA sequence	0.38	<none></none>	<none></none>	<none></none>	
2680	M68841	Human L1 repetitive sequence with a region homologous to a mouse ORF.	9.00E-30	106322	hypothetical protein (L1H 3' region) - human	8e-008	
2681	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0005	<none></none>	<none></none>	<none></none>	
2682	D87973	Mus musculus Impact mRNA, complete cds	0	4038076	(D87973) Impact [Mus musculus]	1e-095	
2683	M69175	Human H-protein mRNA, complete cds.	2e-017	<none></none>	<none></none>	<none></none>	
2684	Z80361	H.sapiens HLA- DRB pseudogene, repeat region;	1e-082	1706108	MITOCHONDRI AL CARNITINE O- PALMITOYLTR ANSFERASE I, LIVER ISOFORM (CPT I) (CPTI-L) carnitine palmitoyltransfera se I [Homo sapiens] I [Homo sapiens]	0.67	

		Nearest Neighbor			Nearest Neighbor	
000		lastN vs. Genbank)			s. Non-Redundant F	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
2685	AF017044	Dictyostelium discoideum LTR- retrotransposon Skipper, partial genomic sequence, 3' end	0.014	<none></none>	<none></none>	<none></none>
2686	U40825	Mus musculus WW-domain binding protein 1 mRNA, complete cds	e-118	1777577	(U40825) WW-domain binding protein 1 [Mus musculus]	2.00E-29
2687	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	2281149	(U58553) maturase [Carum carvi]	4.6
2688	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-008	3328840	(AE001314) Putative outer membrane protein A [Chlamydia trachomatis]	5.8
2689	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
2690	AB012130	Homo sapiens SBC2 mRNA for sodium bicarbonate cotransporter2, complete cds	0.00E+00	3097316	(AB012130) sodium bicarbonate cotransporter2 [Homo sapiens]	3e-045
2691	X69516	H.sapiens gene for folate receptor	3e-008	<none></none>	<none></none>	<none></none>
2692	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5.00E-04		(L42379) bone- derived growth factor [Homo sapiens]	0.17
2693	Z15027	H.sapiens HLA class III DNA	3.00E-07		!!!! ALU SUBFAMILY SP WARNING ENTRY	3.6
2694	Ù95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	2e-006	<none></none>	<none></none>	<none></none>
2695		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	2e-006	<none></none>	<none></none>	<none></none>
			274	<del></del>		

	N	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2696	X77775	G.gallus Gal beta 1, 3 GalNAc- specific GalNAc alpha 2, 6- sialyltransferase mRNA.	1e-022	3873839	(Z81029)  W05H12.2  Caenorhabditis  elegans]  >gi 3880545 gnl Pl  D e1350077  (Z82072)  W05H12.2	5.9	
2697	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	2281149	(U58553) maturase [Carum carvi]	4.6	
2698	U33005	Mus musculus tbc1 mRNA, complete cds. > :: gb I86429 I86429 Sequence 1 from patent US 5700927	3e-093	3893077	(Y17923) lyncein [Bos taurus]	1e-040	
2699	U74651	Human DNA polymerase gamma (polg) gene, promoter region and partial cds	le-022	113667	IIII ALU CLASS B WARNING ENTRY !!!!	0.002	
2700	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	9e-009	3064257	(AF043899) amphiphysin IIc1 [Homo sapiens]	0.87	
2701	U43893	Mus musculus ATP synthase gamma-subunit gene, nuclear gene encoding a mitochondrial protein, partial cds	0.005	3929529	(AF034611) intrinsic factor- B12 receptor precursor; cubilin [Homo sapiens]	0.67	
2702	U43893	Mus musculus ATP synthase gamma-subunit gene, nuclear gene encoding a mitochondrial protein, partial cds	0.005	3929529	(AF034611) intrinsic factor- B12 receptor precursor; cubilin [Homo sapiens]	0.67	

		Nearest Neighbor		Nearest Neighbor			
SEQ	(B ACCESSION	lastN vs. Genbank)		(BlastX v	s. Non-Redundant Pr		
ID		DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2703	M30704	Human amphiregulin (AR) mRNA, complete cds, clones lambda-AR1 and lambda-AR2.	0	113754	AMPHIREGULIN PRECURSOR (AR)	4e-041	
2704	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-010	<none></none>	<none></none>	<none></none>	
2705	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.2	
2706		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	2832664	(AL021710) pollen-specific protein - like [Arabidopsis thaliana]	8e-020	
2707	U00684	Human unknown mRNA.	2e-038		30S RIBOSOMAL PROTEIN S6 Mycoplasma pneumoniae (SGC3) (ATCC 29342) >gi 1674305 similar to Swiss- Prot Accession Number P02358, from E. coli [Mycoplasma pneumoniae]	1.3	
2708		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5e-015	108693	glutamic acid-rich protein, retinal - bovine taurus]	0.067	
2709	]	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-011		hypothetical 32K protein (frxC 5' region) - Synechocystis sp. (PCC 6803) Sgi 217091 gnl PI D d1001745	0.8	

		Nearest Neighbor		Nearest Neighbor (Plast Y vs. Non Redundant Proteins)			
		astN vs. Genbank)	P VALUE	(BlastX vs. Non-Redundant Proteins)  ACCESSION   DESCRIPTION   P VALUE			
SEQ ID	ACCESSION	DESCRIPTION					
2710	AF083395	Homo sapiens phospholipase A2-activating protein mRNA, complete cds	e-175	4106818	(AF083395) phospholipase A2- activating protein [Homo sapiens]	4e-039	
2711	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-011	<none></none>	<none></none>	<none></none>	
2712	AB019488	Homo sapiens DNA for TRKA, exon 17 and complete cds	0	37403	(X03541) trk gene product (aa 1-641) [Homo sapiens]	1e-032	
2713	X62570	H.sapiens mRNA for IFP53	e-105	32709	(X62570) IFP53 [Homo sapiens]	6e-033	
2714	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.005	1170056	GENERAL SECRETION PATHWAY PROTEIN F	4.3	
2715	AF031924	Homo sapiens homeobox transcription factor barx2	e-161	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.5	
2716	AF031924	Homo sapiens homeobox transcription factor barx2	e-161	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.5	
2717	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	9e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.4	
2718	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	9e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.4	
2719	L20826	Human I-plastin mRNA, complete cds.	e-163	2493466	I-PLASTIN (INTESTINE- SPECIFIC PLASTIN) >gi 1362892 pir  A 56536 plastin, intestine-specific - human >gi 405230 (L20826) I-plastin	6e-069	

F		Nearest Neighbor		<del></del>		
	(B	lastN vs. Genbank)		Nearest Neighbor (BlastX vs. Non-Redundant Proteins)		
SEQ	ACCESSION	DESCRIPTION	PVALUE	(BlastA V	's. Non-Redundant P	
ID		DESCRIPTION	PVALUE	ACCESSION	DESCRIPTION	P VALUE
2720	Z54386	H.sapiens CpG DNA, clone 10g3, forward read cpg10g3.ft1a	7e-059	1788180	(AE000281) biotin sulfoxide reductase 2 [Escherichia coli]	5.8
2721	AF086201	Homo sapiens full length insert cDNA clone ZC42G09	le-085	2564332	(AB006630) KIAA0292 [Homo sapiens]	5.4
2722	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	0.12
2723	AJ006267	Homo sapiens mRNA for ClpX- like protein	0	3688380	(AJ006267) ClpX- like protein [Homo sapiens]	1e-091
2724	AF064801	Homo sapiens multiple membrane spanning receptor TRC8 (TRC8) mRNA, complete cds	0	3395787	(AF064801) multiple membrane spanning receptor TRC8	e-123
2725		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-006		(AF029331) immunoglobulin heavy chain V region [Homo sapiens]	4.2
2726		S.salar DNA segment containing GT repeat	0.006	<none></none>	<none></none>	<none></none>
2727		S.salar DNA segment containing GT repeat	0.006	<none></none>	<none></none>	<none></none>
2728		Archaeoglobus fulgidus section 136 of 172 of the complete genome	0.041	<none></none>	<none></none>	<none></none>

	1	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
2729	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7e-007	1170586	RAS GTPASE-ACTIVATING-LIKE PROTEIN IQGAP1 (P195) (KIAA0051) >gi 627594 pir  A5 4854 Ras GTPase activating-related protein - human sapiens] >gi 536844 (L33075) ras GTPase-activating-like protein [Homo sapiens]	9e-011		
2730	M60858	Human nucleolin gene, complete cds.	<b>e</b> -129	<none></none>	<none></none>	<none></none>		
2731	M85145	Human tumor necrosis factor receptor, 3' flank.	2e-007	<none></none>	<none></none>	<none></none>		
2732	M85145	Human tumor necrosis factor receptor, 3' flank.	2e-007	<none></none>	<none></none>	<none></none>		
2733	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-013	<none></none>	<none></none>	<none></none>		
2734	L07063	Mus musculus FKBP65 binding protein mRNA, complete cds	6e-089		FKBP65 binding protein - mouse >gi 894162	6e-024		
2735	X63432	H.sapiens ACTB mRNA for mutant beta-actin	e-112	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-014		
2736	AF083395	Homo sapiens phospholipase A2-activating protein mRNA, complete cds	0	4106818	(AF083395) phospholipase A2- activating protein [Homo sapiens]	1e-094		
2737	AJ012449	Homo sapiens mRNA for NS1- binding protein	3e-009	3165570	(AF067946) similar to Drosophila ring canal protein	4e-032		

	Nearest Neighbor			Nearest Neighbor			
		BlastN vs. Genbank)		(BlastX)	vs. Non-Redundant F	Proteins	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2738		Human DNA binding protein (HPF2) mRNA, complete cds.	3e-063	3702137	(AL031393) dJ733D15.1 (Zinc- finger protein) [Homo sapiens]	le-040	
2739		<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
2740		Homo sapiens pygl gene, exon 5 and partial intron 4 and 5	e-166	3170407	(AF046798) glycogen phosphorylase [Homo sapiens]	le-044	
2741	Z96177	H.sapiens telomeric DNA sequence, clone 10QTEL040, read 10QTELOO040.s eq	le-053	987050	(X65335) lacZ gene product [unidentified cloning vector]	2e-005	
2742	M90058	Human serglycin gene, exons 1,2, and 3.	3e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	8.8	
2743	X69878	H.sapiens Flt4 mRNA for transmembrane tyrosine kinase	2e-088	<none></none>	<none></none>	<none></none>	
2744	X69878	H.sapiens Flt4 mRNA for transmembrane tyrosine kinase	2e-088	<none></none>	<none></none>	<none></none>	
2745	AB007923	Homo sapiens mRNA for KIAA0454 protein, partial cds	0	3413870	(AB007923) KIAA0454 protein [Homo sapiens]	1e-098	
2746		Homo sapiens testis-specific Y- encoded-like protein (TSPYL) mRNA, partial cds	2e-047	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3	
2747		Caenorhabditis elegans cosmid VK10D6R, complete sequence [Caenorhabditis elegans]	1.2	<none></none>	<none></none>	<none></none>	
2748	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012	ì	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	0.12	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID							
2749	U95102	Xenopus laevis	2e-008	<none></none>	<none></none>	<none></none>	
		mitotic					
1		phosphoprotein					
		90 mRNA,		-			
2750	U95102	Complete cds  Xenopus laevis	2e-008	<none></none>	<none></none>	<none></none>	
2750	093102	mitotic	26-008	\INOINE>	NONL	-INOINL	
		phosphoprotein					
		90 mRNA,					
		complete cds					
2751	M22970	Human	1e-032	113671	!!!! ALU CLASS	3e-006	
		pancreatic			F WARNING		
		phospholipase A-			ENTRY !!!!		
		2 (PLA-2) gene,					
07.50	1105004	exons 1 to 3.	1 011	2072207	(1105008) :+ -+: -	5.2	
2752	U95094	Xenopus laevis XL-INCENP	le-011	2072296	(U95098) mitotic phosphoprotein 44	5.2	
		(XL-INCENP)			[Xenopus laevis]		
		mRNA, complete		į	[Menopus lacvis]		
		cds					
2753	U95102	Xenopus laevis	3e-011	3219914	HYPOTHETICAL	1e-011	
		mitotic			16.8 KD		
		phosphoprotein			PROTEIN		
		90 mRNA,			C30D10.04 IN		
		complete cds			CHROMOSOME II		
					>gi 2276353 gn  PI		
					D e330328 pombe]		
2754	U95094	Xenopus laevis	1e-011	3875246	(Z81490) similar	6e-078	
		XL-INCENP			to WD domain, G-		
		(XL-INCENP)			beta repeats (2		
		mRNA, complete			domains); cDNA		
		cds			EST TODARS		
					EMBL:T00482 comes from this		
					gene; cDNA EST		
					EMBL:T00923		
					comes from this		
.				İ	gene; cDNA EST		
	· 			:	yk449d4.3 comes		
				-	from this gene;		
					cDNA EST	1	
					yk449d4.5 comes	1	
					from this gen		

	]	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P	roteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
2755	D79205	Human mRNA for ribosomal protein L39, complete cds	1e-086	1173044	60S RIBOSOMAL PROTEIN L39 norvegicus] >gi 1373419 (U57846) ribosomal protein L39 ribosomal protein L39 [Homo sapiens]	4e-009		
2756	AB014591	Homo sapiens mRNA for KIAA0691 protein, complete cds	0	3327196	(AB014591) KIAA0691 protein [Homo sapiens]	1e-047		
2757	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-012	115409	CUTICLE COLLAGEN ROL-6 elegans] >gi 3879235 gnl PI D e1348932 (Z66499) similar to cuticle collagen ROL-6; cDNA EST cm10c4 comes from this gene; cDNA EST EMBL:M88874 comes from this gene; cDNA EST yk265e2.3 comes from this gene; cDNA EST yk265e2.5 comes fro	0.031		
2758		Human macrophage colony stimulating factor receptor (c-fms) gene, exon 1A, 2 and partial cds	4e-012	126296	LINE-1 REVERSE TRANSCRIPTAS E HOMOLOG protein [Nycticebus coucang]	0.0005		
2759		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-010	<none></none>	<none></none>	<none></none>		

	1	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2760	M27878	Human DNA binding protein (HPF2) mRNA, complete cds.	3e-063	3702137	(AL031393) dJ733D15.1 (Zinc- finger protein) [Homo sapiens]	1e-040	
2761	U43076	Mus musculus cdc37 homolog mRNA, complete cds	2e-017	755484	(U20281) cell division cycle control protein 37 [Gallus gallus]	8e-022	
2762	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.2	
2763	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	1171883	SODIUM- INDEPENDENT ORGANIC ANION TRANSPORTER (ORGANIC ANION TRANSPORTING POLYPEPTIDE) anion - rat >gi 410311 (L19031) oatp [Rattus norvegicus]	2e-036	
2764	X54452	D.discoideum culmination spiA (Dd31) gene	3.3	<none></none>	<none></none>	<none></none>	
2765	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012	<none></none>	<none></none>	<none></none>	
2766	AF053698	Reporter vector pAP1-Luc, complete sequence	3e-019	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.2	
2767	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-012	3582428	(AB017257) glycocyamine kinase beta chain [Neanthes diversicolor]	4.3	
2768	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
2769	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial	6e-006	3511122	(AF060503) zinc finger protein [Homo sapiens]	5.3	

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	٨	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
		cds					
2770	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-012	<none></none>	<none></none>	<none></none>	
2771	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-012	<none></none>	<none></none>	<none></none>	
2772	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>	
2773	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-013	804788	(M13002) 2855 is the position of the first start codon in ORF 2; putative [Mus musculus]	0.64	
2774	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	8e-008	<none></none>	<none></none>	<none></none>	
2775	M86526	Rat proline-rich protein (PRP) gene, 5' end, and containing several Alu-like repetitive elements.	0.37	<none></none>	<none></none>	<none></none>	
2776	Z22923	M.musculus alpha2 (IX) collagen gene, complete CDS.	0.002	<none></none>	<none></none>	<none></none>	
2777	Z22923	M.musculus alpha2 (IX) collagen gene, complete CDS.	0.002	<none></none>	<none></none>	<none></none>	
2778		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.4	

	1	Nearest Neighbor		Nearest Neighbor			
	(B)	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2779	Z74035	Caenorhabditis elegans cosmid F47G9, complete sequence [Caenorhabditis elegans]	3.4	2879805	(AL021813) hypothetical protein	5.7	
2780	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-012	<none></none>	<none></none>	<none></none>	
2781	AG001356	Homo sapiens genomic DNA, 21q region, clone: 9H11BG25	2e-015	<none></none>	<none></none>	<none></none>	
2782	D83006	Saccharomyces cerevisiae MNN4 gene, complete cds	1.2	<none></none>	<none></none>	<none></none>	
2783	Z59640	H.sapiens CpG DNA, clone 167g11, forward read cpg167g11.ft1b.	0.12	<none></none>	<none></none>	<none></none>	
2784	AF049069	Pinus radiata PRE87 mRNA, complete cds	1.1	1518141	(U66568) myocyte enhancer factor 2A MEF2A [Danio rerio]	3.1	
2785	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.4	
2786		Hydra oligactis cyclic GMP- dependent protein kinase (hyGK) mRNA, complete cds	0.13	<none></none>	<none></none>	<none></none>	
2787		H.sapiens telomeric DNA sequence, clone 10QTEL040, read 10QTELOO040.s eq	3e-041	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.015	

	Nearest Neighbor			Nearest Neighbor			
650		astN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
ID T	ESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
	18716	Homo sapiens galactose-1- phosphate uridyl transferase (GALT) mutant F117S gene, exons 3 and 4	1.1	77657	hypothetical 30.1K protein - Pseudomonas aeruginosa	0.095	
	73902	Mus musculus emerin (Sta) mRNA, complete cds	0.37	529773	(U06752) Heterodimeric complex composed of a mucin subunit, ASGP-1, which is predominantly O- glycosylated, and a cysteine-rich transmembrane subunit, ASGP-2, which is predominantly N- glycosylated [Rattus norvegicus]	0.009	
2790 X5	4171	H.sapiens NG2-6 DNA	4e-021	<none></none>	<none></none>	<none></none>	
	30519	Mouse mammary tumor virus gag gene, 3' end, pol gene, 5' end.	0.12	1262926	(U51903) RasGAP-related protein [Homo sapiens]	4.3	
	23355	Rattus norvegicus mRNA for mitochondrial dicarboxylate carrier	0.38	128059	NEGATIVE FACTOR (F- PROTEIN) (27 KD PROTEIN) (3'ORF) >gi 77283 pir  S07 993 nef protein - simian immunodeficiency virus SIVsm (isolate F236) immunodeficiency virus]	2	
		Homo sapiens full length insert cDNA clone YW23E02	6e-005	-	(AC004697) unknown protein [Arabidopsis thaliana]	9e-016	
2794 U4		Cloning vector DNA, complete sequence.	9e-010	<none></none>	<none></none>	<none></none>	

	N	Nearest Neighbor		Nearest Neighbor			
	(Bl	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2795	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-006	3873667	(Z71178) similar to collagen	0.093	
2796	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	2745961	(U51869) Bcd orf2 [Homo sapiens]	0.47	
2797	AF041209	Homo sapiens midline 1 fetal kidney isoform 2	0.0002	<none></none>	<none></none>	<none></none>	
2798	AF092564	Homo sapiens chromosome- associated protein-C	5e-056	4092846	(AB019987) chromosome- associated polypeptide-C [Homo sapiens]	3e-017	
2799	Ù95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-006	<none></none>	<none></none>	<none></none>	
2800	M95623	Homo sapiens hydroxymethylbil ane synthase gene, complete cds.	0.005	4007760	(AL034433) importin alpha subunit	4.2	
2801	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-007	<none></none>	<none></none>	<none></none>	
2802	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-006	1065945	(U40799) coded for by C. elegans cDNA yk28f2.3; coded for by C. elegans cDNA yk12c10.3; coded for by C. elegans cDNA yk5a12.3; coded for by C. elegans cDNA yk49a8.3; coded for by C. elegans cDNA yk12c10.5; coded for by C. elegans cDNA yk12c10.5; coded for by C. elegans cDNA yk28f2	0.12	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
2803	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.04	<none></none>	<none></none>	<none></none>	
2804	M74558	Human SIL mRNA, complete cds. > :: gb G28581 G285 81 human STS SHGC-35335.	e-126	<none></none>	<none></none>	<none></none>	
2805	M72 <b>8</b> 85	Human GOS2 gene, 5' flank and cds.	0.36	3873821	(Z68213) cDNA EST yk266c4.5 comes from this gene; cDNA EST yk266c4.3 comes from this gene	1.8	
2806	U27341	Bos taurus endothelin converting enzyme-2 Sequence 1 from patent US 5736376	6e-078	2136744	endothelin converting enzyme-2 - bovine	3e-028	
2807	U36756	Mus musculus thrombin receptor (Cf2r) gene, exon 1	0.013	<none></none>	<none></none>	<none></none>	
2808	AJ003209	Human immunodeficienc y virus type 1 mRNA for reverse transcriptase, isolate H-20, partial	0.12	<none></none>	<none></none>	<none></none>	
2809	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-010	<none></none>	<none></none>	<none></none>	
2810		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-009	1272701	(L11900) cytochrome b [Cratogeomys bulleri]	9.3	

	7	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2811	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>	
2812	AB006572	Homo sapiens RMP mRNA for RPB5 meidating protein, complete cds	0	3970833	(AB006572) RPB5 meidating protein [Homo sapiens]	5e-037	
2813	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-006	1109865	(U41540) coded for by C. elegans cDNA yk42d12.5; coded for by C. elegans cDNA yk27e10.5; coded for by C. elegans cDNA cm08h6; coded for by C. elegans cDNA yk88e12.5; coded for by C. elegans cDNA yk42d12.3; coded for by C. elegans cDNA yk42d12.3; coded for by C. elegans cDNA yk27e1	2e-009	
2814	Z26259	H.sapiens isoform 1 gene for L-type calcium channel, exon 4	3e-029	3426264	(AF037269) cell division protein [Mycobacterium smegmatis]	0.47	
2815	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	2358285	(AF010403) ALR [Homo sapiens]	0.27	
2816	AC004498	Homo sapiens chromosome 5, P1 clone 1209C1 (LBNL H104), complete sequence [Homo sapiens]	2e-006	<none></none>	<none></none>	<none></none>	
2817	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.1	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P	roteins)	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2818	U43626	Human chromosome 15q11-q13 putative DNA replication origin in the g- aminobutyric acid receptor b3 and a5 gene cluster	2e-018	2197085	(AF003535) ORF2-like protein [Homo sapiens]	0.0002	
2819	Z96402	H.sapiens telomeric DNA sequence, clone 18QTEL022, read 18QTELOO022.s eq	0.001	386792	intercellular adhesion molecule 2 (ICAM-2) [Homo sapiens]	9.2	
2820	U43626	Human chromosome 15q11-q13 putative DNA replication origin in the g- aminobutyric acid receptor b3 and a5 gene cluster	2e-018	2197085	(AF003535) ORF2-like protein [Homo sapiens]	0.0002	
2821	U66534	Human beta4- integrin (ITGB4) gene, exon 14,15,16,17 and 18	0.12	<none></none>	<none></none>	<none></none>	
2822	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.2	
2823	AC001462	Homo sapiens (subclone 2_h10 from BAC H107) DNA sequence	3e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	7.1	
2824		Escherichia coli K-12 MG1655 section 354 of 400 of the complete genome	6e-005		(Z81592) predicted using Genefinder	2e-039	
2825		Homo sapiens mRNA for KIAA0761 protein, partial cds	3e-009	<none></none>	<none></none>	<none></none>	

	Ŋ	Nearest Neighbor			Nearest Neighbor			
	(B)	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
2826	AL008982	Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 3-52, complete sequence	3.2	3880930	(AL021481) similar to Phosphoglucomuta se and phosphomannomut ase phosphoserine; cDNA EST EMBL:D36168 comes from this gene; cDNA EST EMBL:D70697 comes from this gene; cDNA EST yk373h9.5 comes from this gene; cDNA EST yk373h9.5 comes from this gene; cDNA EST EMBL:T008	5e-053		
2827	Z54196	S.cereale DNA for repeat unit (D1100 family)	0.36	2500714	HYPOTHETICAL 35.0 KD PROTEIN F48E8.1 IN CHROMOSOME III >gi 746485 (U23514) similar to antigen domain of venom allergen (SP:VA52_DOLM A, P10736) and to antigen 5 (PIR:A37329) [Caenorhabditis elegans]	4.1		
2828	Z95979	Homo sapiens hRED1 gene, exons 7, 8, 9 and 10	7e-017	113668	!!!! ALU CLASS C WARNING ENTRY !!!!	0.002		
2829	Z15030	H.sapiens gene for ventricular myosin light chain 2 > :: gb L01652 HUM VMLC Human ventricular myosin light chain 2 gene, seven exons.	5e-024	565265	(M76741) biliary glycoprotein [Homo sapiens]	9.2		
2830	U56440	Human His-1 gene sequence	8e-007	<none></none>	<none></none>	<none></none>		

		Nearest Neighbor		Т	Monnost Nini-lab	
	(B	lastN vs. Genbank)		(PlastV)	Nearest Neighbor	<b>)</b>
SEQ	ACCESSION	DESCRIPTION	P VALUE		vs. Non-Redundant I	
ID		DESCRIPTION	FVALUE	ACCESSION	DESCRIPTION	P VALUE
2831	AF009941	Tomocichla tuba cytochrome b (cytb) gene, mitochondrial gene encoding mitochondrial protein, complete cds	1.2	<none></none>	<none></none>	<none></none>
2832	X68011	H.sapiens ZNF81 gene	3e-030	1731442	ZINC FINGER PROTEIN 81 human (fragment) >gi 454325 (X68011) ZNF81 gene product	1e-020
2833	U36499	Human lymphoid-specific SP100 homolog (LYSP100-A) mRNA, complete cds	1e-020	<none></none>	<none></none>	<none></none>
2834		H.sapiens CpG DNA, clone 31f7, reverse read cpg31f7.rt1a.	3e-059	<none></none>	<none></none>	<none></none>
2835		P.vivax pval gene	0.0002	<none></none>	<none></none>	<none></none>
2836		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0005	576257	Prostatic Acid Phosphatase (E.C.3.1.3.2) Complexed With Tartaric Acid >gi 576258 pdb 1R PT  Prostatic Acid Phosphatase (E.C.3.1.3.2) Complexed With Vanadate	3e-009

	Nearest Neighbor			Nearest Neighbor			
	(B)	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2837	U72372	Scandia geniculata 18S ribosomal RNA and 25S ribosomal RNA genes, partial sequence, and internal transcribed spacer 1, 5.8S ribosomal RNA gene and internal transcribed spacer 2, complete sequence	0.12	<none></none>	<none></none>	<none></none>	
2838	D49425	Anabaena variabilis rbpD gene for RNA- binding protein, complete cds	3.2	<none></none>	<none></none>	<none></none>	
2839	X95844	S.cerevisiae POP3 gene	3.5	<none></none>	<none></none>	<none></none>	
2840	AE001425	Plasmodium falciparum chromosome 2, section 62 of 73 of the complete sequence	0.041	3880909	(AL032636) Y40B1B.3 [Caenorhabditis elegans]	5.5	
2841	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-007	<none></none>	<none></none>	<none></none>	
2842	X69064	M.musculus Ank- 1 mRNA for erythroid ankyrin	1.3	<none></none>	<none></none>	<none></none>	
2843	U61950	Caenorhabditis elegans cosmid C45E5	0.13	<none></none>	<none></none>	<none></none>	
2844	U73332	Human non- coding genomic sequence upstream from unique L0 sequence in the alpha-globin gene cluster	1e-010	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
2845	U21051	Human G protein-coupled receptor (GPR4) gene, complete cds.	0.13	<none></none>	<none></none>	<none></none>		
2846	X57921	O.sativa random single-copy DNA fragment 12RG214R	4.1	<none></none>	<none></none>	<none></none>		
2847	AF037219	Homo sapiens PIX1 mRNA sequence	0.043	<none></none>	<none></none>	<none></none>		
2848	M55124	Human cystic fibrosis transmembrane conductance regulator (CFTR) gene, exon 17b	0.005	<none></none>	<none></none>	<none></none>		
2849	AF035527	Mus musculus EHF (Ehf) mRNA, complete cds	e-164	3138930	(AF035527) EHF [Mus musculus]	5e-084		
2850	AF052695	Rattus norvegicus cell cycle protein p55CDC gene, complete cds	3.7	2894379	(Y14573) ring finger protein [Hordeum vulgare]	8.2		
2851	<none></none>	<none></none>	<none></none>	3327112	(AB014549) KIAA0649 protein [Homo sapiens]	3.8		
2852	M34664	Human chaperonin (HSP60) mRNA, complete cds.	0	2501737	TRANSCRIPTIO NAL ACTIVATOR PROTEIN ACU- 15 >gi 1922895 gnl PI D e308394 (Y11565) transcriptional activator protein [Neurospora crassa]	4.4		
2853		Aspergillus oryzae niaD gene for nitrate reductase, complete cds	0.042	3879556	(Z70756) T06E4.11 [Caenorhabditis elegans]	0.5		

		Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2854	AF016266	Homo sapiens TRAIL receptor 2 mRNA, complete cds	1e-010	134846	SMALL PROLINE-RICH PROTEIN II rich protein [Homo sapiens]	1.5	
2855	U44862	Human Down Syndrome region of chromosome 21, clone A11E6- 2B6.	1.2	<none></none>	<none></none>	<none></none>	
2856	X14503	Chlamydomonas eugametos petD gene for cytochrome b6/f complex subunit	0.13	<none></none>	<none></none>	<none></none>	
2857	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	3228515	(U70256) SomA [Synechococcus PCC6301]	4.6	
2858	M25534	Chicken actin- capping protein (CapZ 36/32) alpha subunit mRNA, complete cds.	0.41	<none></none>	<none></none>	<none></none>	
2859	X84372	D.melanogaster lethal(3)73Ah gene	1.1	<none></none>	<none></none>	<none></none>	
2860	AF053551	Homo sapiens metaxin 2 (MTX2) mRNA, nuclear gene encoding mitochondrial protein, complete cds	0	3283049	(AF053551) metaxin 2 [Homo sapiens]	2e-089	
2861		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-005	1	(Z66520) similar to RBB3 like protein; cDNA EST EMBL:C08891 comes from this gene; cDNA EST EMBL:C09371 comes from this gene; cDNA EST yk468f10.5 comes	3e-005	

		Nearest Neighbor			Nearest Neighbor			
CEC		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
					from this gene [Caenorhabditis elegans]			
2862	AB002450	Homo sapiens mRNA from chromosome 5q21-22, clone:A3-A	2e-014	3790760	(AF099922) No definition line found [Caenorhabditis elegans]	2.5		
2863	AF053698	Reporter vector pAP1-Luc, complete sequence	1e-009	<none></none>	<none></none>	<none></none>		
2864	AF045086	Drosophila prosaltans 14045- 0901.4 cytochrome oxidase II (COII) gene, mitochondrial gene encoding mitochondrial protein, complete cds	0.005	<none></none>	<none></none>	<none></none>		
2865	Y09312	C.botulinum HA- 70 gene (partial) and HA-17 gene	0.002	1171601	(X95276) rps8 [Plasmodium falciparum]	5.7		
2866	AJ001597	Homo sapiens gene encoding cAMP-dependent protein kinase gamma isoform	0.005	1869883	(Z86099) RS1 [human herpesvirus 2] herpesvirus 2]	0.52		
2867	AF022962	Mus musculus Sec8 mRNA, complete cds	1.1	<none></none>	<none></none>	<none></none>		
2868	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0005		PROBABLE SERINE/THREO NINE-PROTEIN KINASE YOL113W (PROTEIN KINASE 75490	3.5		

	Nearest Neighbor			Nearest Neighbor			
		astN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
					(D)		
2869	AJ005262	Dictyostelium discoideum gene encoding a novel glycoprotein	0.12	<none></none>	<none></none>	<none></none>	
2870	U08214	Rattus sp. DNA binding protein (URE-B1) mRNA, complete cds.	0.12	4033834	(AJ009556) cytoskeleton assembly control protein Sla2p [Candida albicans]	0.13	
2871	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
2872	M31061	Human ornithine decarboxylase gene, complete cds.	2e-015	3808095	(Y08560) SCO- spondin [Bos taurus]	0.098	
2873	U21914	Human duplicate spinal muscular atrophy mRNA, clone 5G7, partial cds.	0.002	<none></none>	<none></none>	<none></none>	
2874	<none></none>	<none></none>	<none></none>	1228047	(D83782) the KIAA0199 gene is expressed ubiquitously.; the KIAA0199 protein shows similarity to sea urchin hydroxymethylglut alyl-CoA reductase, and retains 8 hydrophobic domains. [Homo sapiens]	2.5	
2875	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	4105505	(AF046914) multiple inositol polyphosphate phosphatase	5.6	
2876	Z96210	H.sapiens telomeric DNA sequence, clone 12PTEL057, read 12PTELOO057.s eq	0.014	2347056	(AJ000085) Nedd4 protein [Xenopus laevis]	5.8	

		Nearest Neighbor			Nearest Neighbor			
	(E	BlastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
2877		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-013	2133693	masquerade precursor - fruit fly (Drosophila melanogaster) >gi 665545 (U18130) masquerade [Drosophila melanogaster] >gi 1095942 prf  2 110286A masquerade gene	1.2		
2878	X54252	C. elegans complete mitochondrial genome	0.38	<none></none>	<none></none>	<none></none>		
2879	S81913	adrenocorticotrop in receptor [Papio anubis=baboons, adrenal, mRNA Partial, 426 nt]	1.2	<none></none>	<none></none>	<none></none>		
2880	X65997	M.musculus c-kit mRNA for truncated tyrosine-kinase	0.13	<none></none>	<none></none>	<none></none>		
2881	AE000588	Helicobacter pylori section 66 of 134 of the complete genome	1.1	<none></none>	<none></none>	<none></none>		
2882	U64861	Caenorhabditis elegans cosmid C47D2.	0.12	<none></none>	<none></none>	<none></none>		
2883	U23173	Caenorhabditis elegans cosmid K07E1	0.37	2854192	(AF045645) contains similarity to microsomal triglyceride transfer proteins [Caenorhabditis elegans]	7.2		
2884		Homo sapiens mRNA for KIAA0679 protein, partial cds	0		(AB014579) KIAA0679 protein [Homo sapiens]	2e-053		

		1	Nearest Neighbor		Nearest Neighbor			
		(B)	lastN vs. Genbank)			s. Non-Redundant P		
ĺ	SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
	2885	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	1707032	(U80445) coded for by C. elegans cDNA yk13g5.3; coded for by C. elegans cDNA yk21g6.3; coded for by C. elegans cDNA CEMSE18F; coded for by C. elegans cDNA yk126b1.3; coded for by C. elegans cDNA yk65h8.3; coded for by C. elegans cDNA yk65h8	0.17	
	2886	Z22795	H.sapiens microsatellite repeat.	6e-005	<none></none>	<none></none>	<none></none>	
	2887	AE001061	Archaeoglobus fulgidus section 46 of 172 of the complete genome	1.1	3738162	(AL031856) putative involvement in protein glycosylation in the golgi [Schizosaccharom yces pombe]	2.4	
	2888	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-006	<none></none>	<none></none>	<none></none>	
	2889	Z96643	H.sapiens telomeric DNA sequence, clone 5QTEL064, read 5QTELOO064.se q	0.0005	1363732	probable membrane protein YLR454w - yeast	4	
	2890	Z96643	H.sapiens telomeric DNA sequence, clone 5QTEL064, read 5QTELOO064.se q	0.0005	1363732	probable membrane protein YLR454w - yeast	4	

		Nearest Neighbor		T	Nearest Neighbor	
	(E	BlastN vs. Genbank)	)	(BlastX	vs. Non-Redundant	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE
2891	X80169	M.musculus mRNA for 200 kD protein	e-177	1717793	PROTEIN TSG24 (MEIOTIC CHECK POINT REGULATOR) >gi 1083553 pir  A 55117 tsg24 protein - mouse	
2892	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	9e-009	3832555	(AF077439) immunoglobulin heavy chain variable region	4.4
2893	AC002359	Homo sapiens Xp22 Cosmid U239B3 (from Lawrence Livermore X library) complete sequence [Homo sapiens]	2e-007	3599342	(AF081112) ORF2 [Mus musculus domesticus]	0.61
2894	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-011	3123058	HYPOTHETICAL WD-REPEAT PROTEIN SLL0163 >gi 1001440 gn1 PI D d1010715 (D63999) beta transducin-like protein [Synechocystis sp.]	0.001
2895		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.2
2896		H.sapiens PRM1 gene, PRM2 gene and TNP2 gene	0.013	<none></none>	<none></none>	<none></none>
2897		H.sapiens NFKB1 gene, exons 11 & 12	2e-008	<none></none>	<none></none>	<none></none>
2898		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.004		(AB002333) KIAA0335 [Homo sapiens]	4

	Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)			s. Non-Redundant P		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2899	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
2900	X00367	Chlamydomonas chloroplast DNA region with ARS element 03 (ARS = autonomously replicating sequence)	0.12	<none></none>	<none></none>	<none></none>	
2901	U41222	Dictyostelium discoideum RacE (racE) gene, complete cds	0.35	<none></none>	<none></none>	<none></none>	
2902	AB007504	Triticum aestivum TaMADS#11 mRNA for MADS box transcription factor, complete cds	0.042	<none></none>	<none></none>	<none></none>	
2903	X65319	Cloning vector pCAT-Enhancer	7e-069	987050	(X65335) lacZ gene product [unidentified cloning vector]	7e-011	
2904	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0005	3924670	(AC004990) supported by Genscan and several ESTs: C83049	6e-042	
2905	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.041	2132051	hypothetical protein YOR083w - yeast	3.3	
2906	Z12112	pWE15A cosmid vector DNA	6e-068	987050	(X65335) lacZ gene product [unidentified cloning vector]	2e-009	
2907	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	2995374	(AL022245) hypothetical protein	5e-005	

		Nearest Neighbor			Nearest Neighbor	
SEQ	ACCESSION	BlastN vs. Genbank)    DESCRIPTION		(BlastX	vs. Non-Redundant	
ID		DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALU
2908		Cloning vector DNA, complete sequence.	3e-009	<none></none>	<none></none>	<none< td=""></none<>
2909	X71623	H.sapiens ZNF74-1 mRNA > :: gb G27154 G271 54 human STS SHGC-31580.	4e-012	113669	!!!! ALU CLASS D WARNING ENTRY !!!!	4.1
2910	U43626	Human chromosome 15q11-q13 putative DNA replication origin in the gaminobutyric acid receptor b3 and a5 gene cluster	7e-007	2394501	(AF024503) No definition line found [Caenorhabditis elegans]	9.6
2911	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-014	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.3
2912	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-012	2688749	(AE001179) conserved hypothetical protein [Borrelia burgdorferi]	2.3
2913	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-013	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.9
2914	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-013	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	4
2915		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>
2916		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.004		(U45423) minus strand repeat motif-containing gene	0.092

	1	Vearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)			s. Non-Redundant F	,	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2917	X80283	P.polycephalum genomic DNA containing Taq I repetitive element	3.3	<none></none>	<none></none>	<none></none>	
2918	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-006	<none></none>	<none></none>	<none></none>	
2919	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-006	<none></none>	<none></none>	<none></none>	
2920	Z97333	Homo sapiens RHCE gene	9e-020	113667	!!!! ALU CLASS B WARNING ENTRY !!!!	4e-005	
2921	AF082350	Homo sapiens bone morphogenetic protein 15 precursor (BMP15) gene, exon 2 and complete cds		<none></none>	<none></none>	<none></none>	
2922	L14684	Rattus norvegicus nuclear-encoded mitochondrial elongation factor G mRNA, complete cds.		585084	ELONGATION FACTOR G, MITOCHONDRI AL PRECURSOR (MEF-G) >gi 543383 pir  S4 0780 translation elongation factor G, mitochondrial - rat >gi 310102	9e-089	
2923		Human mRNA for 5'-terminal region of UMK, complete cds	e-163	1718058	URIDINE KINASE (URIDINE MONOPHOSPHO KINASE) >gi 471981 (L31783) uridine kinase	7e-072	
2924		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-007	<none></none>	<none></none>	<none></none>	

	6	Nearest Neighbor			Nearest Neighbor	
SEQ	ACCESSION	lastN vs. Genbank)  DESCRIPTION			s. Non-Redundant P	
ID			P VALUE	ACCESSION	DESCRIPTION	P VALUE
2925	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	Je-013	1351922	AMINE OXIDASE PRECURSOR (MONAMINE OXIDASE) (TYRAMINE OXIDASE) >gi 419575 pir  B4 1836 amine oxidase (flavin- containing) (EC 1.4.3.4) precursor - Klebsiella pneumoniae >gi 216723 gnl PI D d1001529	5.6
2926	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	9e-009	<none></none>	<none></none>	<none></none>
2927	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-013	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	9.7
2928	AB018285	Homo sapiens mRNA for KIAA0742 protein, partial cds	0	3882205	(AB018285) KIAA0742 protein [Homo sapiens]	2e-093
2929	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-006	3882183	(AB018274) KIAA0731 protein [Homo sapiens]	4e-049
2930	X94762	H.sapiens DNA for Ki-67 antigen 5'-region (exon 1 & 2)	2e-068		Kallmann syndrome protein homolog - chicken	5.6
2931		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-007		(AC004411) hypothetical protein [Arabidopsis thaliana]	2e-026
2932		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete	4e-011		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	6.5

	1	Nearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX v	s. Non-Redundant P		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
		cds					
2933	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-008	<none></none>	<none></none>	<none></none>	
2934	M18795	Gorilla pseudo- beta- and delta- globin gene intergenic region with 2 Alu repeats.	7e-028	<none></none>	<none></none>	<none></none>	
2935	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0005	<none></none>	<none></none>	<none></none>	
2936	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-007	<none></none>	<none></none>	<none></none>	
2937	U09874	Mus musculus SKD3 mRNA, complete cds.	2e-086	2493735	SKD3 PROTEIN SKD3 [Mus musculus]	6e-036	
2938	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.6	
2939	D38417	Mouse mRNA for arylhydrocarbon receptor, complete cds	e-154	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.4	
2940	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-008	3879062	(Z81576) predicted using Genefinder	9.2	
2941	AE001368	Plasmodium falciparum chromosome 2, section 5 of 73 of the complete sequence	0.014	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor	·	<del></del>	Nearest Neighbor	<del></del> -
		BlastN vs. Genbank)		(BlastX v	s. Non-Redundant J	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
2942	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>
2943	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-007	<none></none>	<none></none>	<none></none>
2944	AF083322	Homo sapiens centriole associated protein CEP110 mRNA, complete cds	e-133	3435244	(AF083322) centriole associated protein CEP110 [Homo sapiens]	9e-015
2945	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.014	<none></none>	<none></none>	<none></none>
2946	L07040	pFNeo eukaryotic expression vector, complete sequence.	2e-038	987050	(X65335) lacZ gene product [unidentified cloning vector]	4e-005
2947	X65319	Cloning vector pCAT-Enhancer	2e-078	987050	(X65335) lacZ gene product [unidentified cloning vector]	1e-013
2948	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-008	<none></none>	<none></none>	<none></none>
2949		Human DNA sequence from clone 361H15 on chromosome 22q13.2-13.33, complete sequence [Homo sapiens]	3.2	<none></none>	<none></none>	<none></none>
2950		Homo sapiens (subclone 1_f12 from P1 H115) DNA sequence	2e-037		(U93570) p40 [Homo sapiens]	4e-013

		Nearest Neighbor	•	Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant I	•	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2951	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-005	4105414	(AF045593) ETS DNA binding protein Yan [Drosophila virilis]	1.4	
2952	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-008	629692	hypothetical protein - common tobacco tabacum]	4.3	
2953	S60885	LYAR=cell growth regulating nucleolar protein [mice, EL4 cells, mRNA, 1474 nt]	5e-035	2498524	CELL GROWTH REGULATING NUCLEOLAR PROTEIN >gi 423488 pir  A4 0683 cell growth regulating nucleolar protein LYAR - mouse >gi 300372 bbs 13 1782	5e-014	
2954	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-012	<none></none>	<none></none>	<none></none>	
2955	Z23090	H.sapiens mRNA for 28 kDa heat shock protein.	1e-063		60S RIBOSOMAL PROTEIN L10A (CSA-19)	3e-020	
2956	X87817	M.musculus mRNA for Ulip protein	0.0005	<none></none>	<none></none>	<none></none>	
2957		Enterococcus faecium enterocin B (entB) gene, complete cds	1.2	<none></none>	<none></none>	<none></none>	
2958		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.001	<none></none>	<none></none>	<none></none>	
2959		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-011	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
CTA		lastN vs. Genbank)	I D VI I I I I				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2960	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	3e-009	<none></none>	<none></none>	<none></none>	
2961	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	3e-009	<none></none>	<none></none>	<none></none>	
2962	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	<none></none>	<none></none>	<none></none>	
2963	X62025	H.sapiens rod cG-PDE G gene for 3', 5'-cyclic nucleotide phosphodiesteras e	4e-034	728838	!!!! ALU SUBFAMILY SX WARNING ENTRY	9e-006	
2964	AJ223364	Homo sapiens germ-line DNA upstream of Jkappa locus	1e-023	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	4.2	
2965	Z47046	Human cosmid QLL2C9 from Xq28	3e-020	804808	(M13100) unknown protein [Rattus norvegicus]	7e-005	
2966	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
2967	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	9e-009	464502	PEROXISOMAL TARGETING SIGNAL RECEPTOR (PEROXISOMAL PROTEIN PAS10) (PEROXIN-5) (PTS1 RECEPTOR) >gi 1078412 pir  A 49403 tetratricopeptide- repeat protein PAS10 - yeast tetratricopeptide-	9.5	

	Ţ	Nearest Neighbor	· · · · · ·	Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P	roteins)	
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID					repeat protein [Saccharomyces cerevisiae] >gi 817830 (Z49701) Pas10p [Sa		
2968	AF035940	Homo sapiens MAGOH mRNA, complete cds	3e-050	2306969	(AF007860) xl- Mago [Xenopus laevis]	1e-041	
2969	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
2970	X66297	H.sapiens Alu repeat (terminator 3)	5e-014	<none></none>	<none></none>	<none></none>	
2971	AB007934	Homo sapiens mRNA for KIAA0465 protein, partial cds	0	3413892	(AB007934) KIAA0465 protein [Homo sapiens]	e-118	
2972	X15982	Ascobolus immersus DNA of linear mitochondrial plasmid pAI2 with virus like replication	0.042	<none></none>	<none></none>	<none></none>	
2973		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor	<del></del>	1	Nonest Nation	
	(E	BlastN vs. Genbank)	)	(BlastX)	Nearest Neighbor vs. Non-Redundant I	)mataima)
SEQ	ACCESSION		P VALUE	ACCESSION	DESCRIPTION	P VALUE
ID					22001111011	, VALUE
2974	AC002181	Homo sapiens (subclone 2_a12 from BAC H111) DNA sequence	2e-014	3879351	(Z35663) Short region of similarity with glucose-6-phosphate 1-dehydrogenase from Plasmodium falciparum; cDNA EST EMBL:C12945 comes from this gene; cDNA EST yk251d3.3 comes from this gene; cDNA EST yk251d3.5 comes	0.69
2975	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.002	<none></none>	from this <none></none>	<none></none>
2976	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-013	3334221	4- HYDROXYPHEN YLPYRUVATE DIOXYGENASE 4- hydroxyphenylpyr uvate dioxygenase [Mycosphaerella graminicola]	2e-012
2977	S60885	LYAR=cell growth regulating nucleolar protein	8e-028		CELL GROWTH REGULATING NUCLEOLAR PROTEIN >gi 423488 pir  A4 0683 cell growth regulating nucleolar protein LYAR - mouse >gi 300372 bbs 13 1782	0.72
2978		Cloning vector pRcCMV-luc luciferase gene, complete cds	1e-010		(M24873) major structural protein [Rhesus macaque polyomavirus]	1.1

	1	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)	· · · · · · · · · · · · · · · · · · ·	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
2979	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-014	399294	CYTOCHROME P450 XXIA3 (STEROID 21- HYDROXYLASE ) (P450-C21) >gi 2117374 pir  A 32525 steroid 21- monooxygenase (EC 1.14.99.10) cytochrome P450 21A1 - pig >gi 164560 (M83939) steroid 21-hydroxylase	3.5	
2980	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	1169449	PROBABLE EARLY E4 33 KD PROTEIN	1.9	
2981	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.2	
2982	Z11711	H.sapiens gene for alpha-2 macroglobulin, exon 1	2e-014	728835	!!!! ALU SUBFAMILY SC WARNING ENTRY	4.2	
2983	M76363	Human (Papua New Guinean) Mitochondrial DNA control region, sequence 130.	le-053	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.9	
2984	U21228	Promoter-probe vector pCG1408, complete sequence.	3e-049	<none></none>	<none></none>	<none></none>	
2985	X52994	Sheep mRNA for CD3 gamma subunit (partial)	0.005	1084987	cryptogene protein G4 - Sauroleishmania tarentolae (strain LEM125)	2.6	
2986	X52994	Sheep mRNA for CD3 gamma subunit (partial)	0.005	1084987	cryptogene protein G4 - Sauroleishmania tarentolae (strain LEM125)	2.6	
2987	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor	· · · · · · · · · · · · · · · · · · ·	T	Nearest Neighbor	
	(I	BlastN vs. Genbank	)	(BlastX	vs. Non-Redundant	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
2988		<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
2989	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	123398	OCTAMER-BINDING TRANSCRIPTIO N FACTOR 1 (OTF-1) (NF-A1) >gi 104811 pir  A3 4873 transcription factor Oct-1, octamer-binding - chicken	3.2
2990	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-010	3881655	>gi 212467 (Z82090) similar to Alpha-2-macroglobulin family (3 domains); cDNA EST EMBL:D67694 comes from this gene [Caenorhabditis	6e-019
2991	AB018270	Homo sapiens mRNA for KIAA0727 protein, partial cds	0	2072296	elegans] (U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.5
2992	U58745	Caenorhabditis elegans cosmid C10G6.	1.2	2677839	(AF023476) meltrin-L precursor [Homo sapiens]	0.24
2993	X17051	E.gracilis DNA for ribosomal protein operon	0.13	<none></none>	<none></none>	<none></none>
2994		D.melanogaster Cpo 61.1 gene for couch potato protein.	1.1		(Y12781) transducin (beta) like 1 protein [Homo sapiens]	6e-017
2995		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	8e-008		PARA- AMINOBENZOA TE SYNTHASE Streptomyces griseus > gi 388263 (M93058) p- aminobenzoic acid synthase [Streptomyces griseus]	4.2

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
2996	U11270	Human antithrombin III gene, exon 1 and partial cds.	9e-020	113670	!!!! ALU CLASS E WARNING ENTRY !!!!	0.16		
2997	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-010	3024528	RAS-RELATED PROTEIN RAB2BV	1.1		
2998	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.17		
2999	U51670	Barbus barbus x Barbus meridionalis microsatellite clone no.77	0.13	<none></none>	<none></none>	<none></none>		
3000	U79776	Mus musculus ajuba (Ajuba) mRNA, complete cds	4e-094	1710382	(U79776) ajuba; jub [Mus musculus]	8e-037		
3001	U79776	Mus musculus ajuba (Ajuba) mRNA, complete cds	4e-094	1710382	(U79776) ajuba; jub [Mus musculus]	8e-037		
3002	U79776	Mus musculus ajuba (Ajuba) mRNA, complete cds	e-100	1710382	(U79776) ajuba; jub [Mus musculus]	8e-019		
3003	U79776	Mus musculus ajuba (Ajuba) mRNA, complete cds	e-100	1710382	(U79776) ajuba; jub [Mus musculus]	8e-019		
3004	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0005		hypothetical protein T07C4.9 - Caenorhabditis elegans >gi 3879509 gnl PI D e1349070 (Z29443) similar to Annexin; cDNA EST EMBL:C10640 comes from this gene; cDNA EST EMBL:C12433 comes from this	0.64		

		Nearest Neighbor			Nearest Neighbor		
000	(B	lastN vs. Genbank		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
					gene; cDNA EST yk192f7.5 comes from this gene; cDNA EST yk318c1		
3005	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete	5e-013	1944590	(Z94121) hypothetical protein Rv3899c	7.8	
3006	<none></none>	cds	ALONES	210175			
3007	V40603	<none> Rattus norvegicus rat-slowpoke- alpha mRNA, complete cds</none>	0.12	<none> 1082665</none>	<pre><none> oligodendrocyte- specific proline- rich protein 2 - human &gt;gi 1408050 gnl PI D d1006205 (D28114) MOBP [Homo sapiens]</none></pre>	<none> 0.22</none>	
3008	AF044081	Rattus norvegicus steroidogenic acute regulatory protein (StAR) mRNA, complete cds	1.1	2213519	(Z97050) sigG [Mycobacterium tuberculosis]	3.1	
3009		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-007	<none></none>	<none></none>	<none></none>	
3010		Human gene for plasminogen activator inhibitor 1	1e-009	<none></none>	<none></none>	<none></none>	
3011		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012		(X66924) helix- loop-helix protein [Homo sapiens]	0.85	

		Nearest Neighbor			Nearest Neighbor			
	<u></u>	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3012	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]			
3013	D78335	Human mRNA for 5'-terminal region of UMK, complete cds	e-101	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]			
3014	U03887	Human BXP20 gene.	6e-005	<none></none>	<none></none>	<none></none>		
3015	U43194	Mus musculus rhophilin mRNA, complete cds	4e-044	1176422	(U43194) rhophilin [Mus musculus]	7e-020		
3016	AC004507	Homo sapiens chromosome 5, P1 clone 798F12 (LBNL H82), complete sequence [Homo sapiens]	1.2	<none></none>	<none></none>	<none></none>		
3017	X63436	B.taurus mRNA for poly(A) polymerase	0	464345	POLY(A) POLYMERASE (PAP) polynucleotide adenylyltransferas e [Bos taurus]	6e-065		
3018	M98512	Human NFG genomic fragment.	1e-021	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.095		
3019	AJ005016	Homo sapiens mRNA for putative ABC transporter, partial	e-159		(AJ005016) ABC transporter [Homo sapiens]	2e-039		
3020	AJ006778	Homo sapiens mRNA for DRIM protein	1e-053	<none></none>	<none></none>	<none></none>		
3021	X65319	Cloning vector pCAT-Enhancer	3e-081		(X65335) lacZ gene product [unidentified cloning vector]	3e-015		
3022	U14698	Human Alu-Sb2 repeat, clone HSB-8P.	1e-040		!!!! ALU SUBFAMILY SB2 WARNING ENTRY	0.0001		

		Nearest Neighbor (BlastN vs. Genbank)			Nearest Neighbor			
SEQ	ACCESSION	DESCRIPTION		(BlastX	vs. Non-Redundant			
ID			P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3023		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-010	3218396	(AL023860) hypothetical protein	0.0003		
3024		Xenopus laevis mitotic phosphoprotein 44 mRNA, partia cds	1.20E-01	<none></none>	<none></none>	<none></none>		
3025		H.sapiens CpG DNA, clone 151a12, reverse read cpg151a12.rt1a.	3e-020	1079063	deep orange protein - fruit fly (Drosophila melanogaster) >gi 798832 (X86683) deep orange (dor)	9.90E-02		
3026	AB014564	Homo sapiens mRNA for KIAA0664 protein, partial cds	e-164	2498095	5E5 ANTIGEN >gi 1085558 pir  J C4163 DNA- binding protein 5E5 - rat norvegicus] >gi 1581020 prf  2 116328A DNA- binding protein 5E5 [Rattus norvegicus]	3.2		
3027	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-010	<none></none>	<none></none>	<none></none>		
3028		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-010	<none></none>	<none></none>	<none></none>		
3029		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-010	<none></none>	<none></none>	<none></none>		
3030	1	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4.00E-12	İ	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.6		

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3031	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds		<none></none>	<noné></noné>	<none></none>	
3032	AF070523	Homo sapiens JWA protein mRNA, complete cds	0.00E+00	<none></none>	<none></none>	<none></none>	
3033	Z19055	B.aphidicola tryptophan operon	0.41	<none></none>	<none></none>	<none></none>	
3034	Z19055	B.aphidicola tryptophan operon	0.41	<none></none>	<none></none>	<none></none>	
3035	Z19055	B.aphidicola tryptophan operon	0.41	<none></none>	<none></none>	<none></none>	
3036	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	7.00E-07	<none></none>	<none></none>	<none></none>	
3037	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>	
3038	AF064482	Homo sapiens natural resistance- associated macrophage protein 2 (NRAMP2) gene, exons 16 and 16A, alternatively spliced IRE form, complete cds	0	<none></none>	<none></none>	<none></none>	
3039	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	1.20E-01	<none></none>	<none></none>	<none></none>	
3041	U28153	Caenorhabditis elegans UNC-76 (unc-76) gene, complete cds.	0.38	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor	· .	<u> </u>	Nearest Neighbor	
SEC	) AGGEOGIA	BlastN vs. Genbank	•	(BlastX	vs. Non-Redundant	Proteins)
ID		2250111 11011	PVALU	E ACCESSIO	N DESCRIPTION	
304		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds			deep orange protein - fruit fly (Drosophila melanogaster) >gi 798832 (X86683) deep orange (dor)	0.23
		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds			deep orange protein - fruit fly (Drosophila melanogaster) >gi 798832 (X86683) deep orange (dor)	0.23
3044		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	2.00E-05	<none></none>	<none></none>	<none></none>
3045	3,0,02	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>
3046	U63810	Homo sapiens WD40 protein Ciao 1 mRNA, complete cds	0.00E+00	3219331	(AC004020) Unknown gene product [Homo sapiens]	2e-097
3047	M21533	Human MHC class I lymphocyte antigen (HLA-E)	2e-005	120467	V-FOS/FOX TRANSFORMIN G PROTEIN murine osteosarcoma virus (provirus) (fragment)	9.9
3049		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	6e-006		NEUROFILAME NT TRIPLET H PROTEIN (200 KD NEUROFILAME NT PROTEIN) (NF-H)	2.6
JU49		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-010	<none></none>	<none></none>	<none></none>

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3050	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.6	
3051	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5.00E-04	3116127	(AL023287) hypothetical protein	6.9	
3052	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7.00E-06	586875	HYPOTHETICAL 29.2 KD PROTEIN IN METS-KSGA INTERGENIC REGION >gi 2127033 pir  S 66068 hypothetical protein - Bacillus subtilis subtilis] >gi 2632306 gnl PI D e1181972 (Z99104) similar to hypothetical proteins [Bacillus subtilis]	2e-014	
3053	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-010	1326350	(U58748) similar to potential transmembrane domains in S. cerevisiae nulcear division RFT1 protein (SP:P38206)	0.035	
3054		Homo sapiens retroviral-like sequence S71, 5LTR and env- like sequence	6e-016		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	4.4	
3055		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-05	<none></none>	<none></none>	<none></none>	
3056		Aquifex aeolicus section 55 of 109 of the complete genome	1.20E+00	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor			Nearest Neighbor			
SEQ	ACCESSION	BlastN vs. Genbank	•	(Blast)	(BlastX vs. Non-Redundant Proteins)			
ID	ACCESSION	DESCRIPTION	P VALUI	E ACCESSIO	N DESCRIPTION	P VALUE		
3057	U18055	Lycopersicon esculentum 1- aminocyclopropa ne-1-carboxylate synthase (LE- ACS3) DNA, partial cds	1.10E+0	0 <none></none>	<none></none>	<none></none>		
3058		Cicer arietinum mRNA for acyl- coA synthetase, partial	0.38	<none></none>	<none></none>	<none></none>		
3059		Cicer arietinum mRNA for acyl- coA synthetase, partial	0.38	<none></none>	<none></none>	<none></none>		
3060	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.014	<none></none>	<none></none>	<none></none>		
3061	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.014	<none></none>	<none></none>	<none></none>		
3062	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3.00E-10	3880303	(Z54238) T28C6.1 [Caenorhabditis elegans]	4.10E-02		
3063	AE000723	Aquifex aeolicus section 55 of 109 of the complete genome	1.20E+00	<none></none>	<none></none>	<none></none>		
3064	Y14352	Gallus gallus gene encoding neurofascin, exons 31 & 31	0.042	995644	(Z54206) UL38 [Bovine herpesvirus 1] >gi 1149580 (Z49078) UL38 [Bovine herpesvirus 1] >gi 2653309 gnl PI D e1187305	1.9		
3065		Aquifex aeolicus section 55 of 109 of the complete genome	1.20E+00	<none></none>	<none></none>	<none></none>		

	1	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3066	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2.00E-03	<none></none>	<none></none>	<none></none>	
3067	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2.00E-03	<none></none>	<none></none>	<none></none>	
3068	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2.00E-03	<none></none>	<none></none>	<none></none>	
3069	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.38	1395143	(D86080) aniline dioxygenase reductase component [Acinetobacter sp.] dioxygenase reductase component [Acinetobacter sp.]	9.00E-05	
3070	AE001398	Plasmodium falciparum chromosome 2, section 35 of 73 of the complete sequence	0.0005	<none></none>	<none></none>	<none></none>	
3071	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.014	<none></none>	<none></none>	<none></none>	
3072	D16902	Human HepG2 3' region cDNA, clone hmd2h10	2.00E-49	<none></none>	<none></none>	<none></none>	
3073	Ž26494	S.cerevisiae genes for histone H2A and H2B, trehalase, and hexaprenyl pyrophosphate synthetase	1.1	3581891	(AL031540) hypothetical wtf3 protein	9.70E+00	

		Nearest Neighbor	<del>- · · · · · · · · · · · · · · · · · · ·</del>	T	Nearest Neighbor	
SEQ	ACCESSIO	(BlastN vs. Genbank	<u> </u>	(BlastX	(BlastX vs. Non-Redundant	
ID		N DESCRIPTION	P VALUI	ACCESSIO	N DESCRIPTION	P VALU
3074		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2.00E-05	2224921	(AF000606) inse intestinal mucin IIM22 [Trichoplusia ni]	ct le-005
3075	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.37	<none></none>	<none></none>	<none< td=""></none<>
3076	U18157	Human HLA class I genomic survey sequence.	2.00E-05	<none></none>	<none></none>	<none:< td=""></none:<>
3077	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4.20E-02	2622750	(AE000921) DNA topoisomerase I [Methanobacteriu m thermoautotrophic um]	
3078	AF022789	Homo sapiens ubiquitin hydrolyzing enzyme I	0.00E+00	<none></none>	<none></none>	<none></none>
3079	U18055	Lycopersicon esculentum 1- aminocyclopropa ne-1-carboxylate synthase (LE- ACS3) DNA, partial cds	1.10E+00	<none></none>	<none></none>	<none></none>
3080	AF022388	Caenorhabditis elegans putative transcription factor MAB-3 (mab-3) gene, complete cds	1.40E-02	3747107	(AF095741) unknown [Rattus norvegicus]	6e-012
3081	AF084594	Plasmodium falciparum erythrocyte membrane protein 1 type w (var) gene, partial cds	1.20E+00	3132802	(AF063223) pol protein [Human immunodeficiency virus type 1]	1.2
3082	D16902		2.00E-49	<none></none>	<none></none>	<none></none>
1001	X65709	A.carrageenovora	0.014	<none></none>	<none></none>	<none></none>

	<u> </u>	Nearest Neighbor	·	Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3084	AF060246	Mus musculus strain C57BL/6 zinc finger protein 106 (Zfp106) mRNA, H3a-a allele, complete cds	2e-078	3372657	(AF060246) zinc finger protein 106 [Mus musculus]	1e-031	
3085	AF037332	Homo sapiens Eph-like receptor tyrosine kinase hEphB1b (EphB1) mRNA, complete cds	3.70E-01	<none></none>	<none></none>	<none></none>	
3086	U17579	Human growth hormone- releasing hormone receptor gene, alternatively spliced forms a, b, and c, partial cds	0.053	<none></none>	<none></none>	<none></none>	
3087	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.39	2950453	(AL022071) beta- transducin	2.00E-05	
3088	U67479	Methanococcus jannaschii section 21 of 150 of the complete genome	0.005	<none></none>	<none></none>	<none></none>	
3089	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-010	3283350	(AF062378) calmodulin- binding protein SHA1 [Mus musculus]	3e-006	
3090	Z59351	H.sapiens CpG DNA, clone 151a12, reverse read cpg151a12.rt1a.	3e-020	1079063	deep orange protein - fruit fly (Drosophila melanogaster) >gi 798832 (X86683) deep orange (dor)	9.90E-02	

	Nearest Neighbor			Nearest Neighbor			
	(E	BlastN vs. Genbank	)	(BlastX	vs. Non-Redundant	Proteins)	
SEQ ID		DESCRIPTION	P VALUE	ACCESSION		P VALUE	
3091	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-005	1125753	(U42833) coded for by C. elegans cDNA CEESN37F; Similar to ammonium transport protein. [Caenorhabditis elegans]	1.00E-17	
3092	AF021834	Homo sapiens tissue factor pathway inhibitor beta (TFPIbeta) mRNA, complete cds		125932	TISSUE FACTOR PATHWAY INHIBITOR PRECURSOR (TFPI) (LIPOPROTEIN-ASSOCIATED COAGULATION INHIBITOR) (LACI) (EXTRINSIC PATHWAY INHIBITOR) (EPI) precursor - human > gi 180546 (J03225) lipoprotein-associated coagulation inhibitor precursor associated		
3093		Homo sapiens mRNA for DRIM protein	0.00E+00	3242214	coagulation (AJ006778) DRIM protein [Homo sapiens]	3e-095	
3094		Homo sapiens mRNA for DRIM protein	0.00E+00	3242214	(AJ006778) DRIM protein [Homo sapiens]	3e-095	
3095		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	6e-005	<none></none>	<none></none>	<none></none>	
3096		Homo sapiens mRNA for DRIM protein	0		(AJ006778) DRIM protein [Homo sapiens]	8.00E-93	
3097		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete	2e-005	<none></none>	<none></none>	<none></none>	

N	Nearest Neighbor		Nearest Neighbor			
(Bl	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
	cds					
				:		
U95094	Xenopus laevis	3.00E-09	1850115	(Z86089) fadD2	1.4	
	XL-INCENP			[Mycobacterium		
	(XL-INCENP)			tuberculosis]		
1,05004	1	1 000	AIONES	AIONES	<none></none>	
U95 <b>0</b> 94		1e-009 	<nune></nune>	<nune></nune>	NONE>	
	,					
	cds					
U95094	Xenopus laevis	1e-009	<none></none>	<none></none>	<none></none>	
	i e					
	,					
				•		
U67986	Bacillus	1.1	2102696	(U72761)	1.90E+00	
	megaterium			karyopherin beta 3		
	anthranilate		·	[Homo sapiens]		
	thranilate					
	isomerase (trpF)					
	_			(110,500,0)		
U95102		3e-010	2072296		5.5	
				[/xenopus laevis]		
	complete cds					
	U95094	(BlastN vs. Genbank)  ACCESSION DESCRIPTION  cds  U95094 Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds  U95094 Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds  U95094 Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds  U95094 Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds  U67986 Bacillus megaterium anthranilate synthase (trpD) gene, partial cds, indole glycerol phosphate synthetase N-phosphoribosylan thranilate isomerase (trpF) gene partial cds  U95102 Xenopus laevis mitotic phosphoprotein 90 mRNA,	(BlastN vs. Genbank)  ACCESSION DESCRIPTION P VALUE  cds  U95094 Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds  U95094 Xenopus laevis XL-INCENP) mRNA, complete cds  U95094 Xenopus laevis XL-INCENP) mRNA, complete cds  U95094 Xenopus laevis XL-INCENP) mRNA, complete cds  U95094 Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds  U67986 Bacillus 1.1 megaterium anthranilate synthase (trpD) gene, partial cds, indole glycerol phosphate synthetase N-phosphoribosylan thranilate isomerase (trpF) gene partial cds  U95102 Xenopus laevis mitotic phosphoprotein 90 mRNA,	Color	CBlastN vs. Genbank    CBlastX vs. Non-Redundant P	

		Nearest Neighbor	· · · · · · · · · · · · · · · · · · ·	T	Nearest Neighbor	<del></del>
	(B	lastN vs. Genbank)	)	(BlastX vs. Non-Redundant Proteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3103	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1.00E-10	135554	TETRACYCLINE RESISTANCE PROTEIN Bacillus cereus plasmid pBC16 >gi 72838 pir  YTS OG tetracycline resistance protein- Streptococcus agalactiae plasmid pMV158 >gi 80428 pir  JQ1 211 tetracycline resistance protein- Bacillus sp. plasmid pTB19 >gi 151696 (M63	
3104	AJ006778	Homo sapiens mRNA for DRIM protein	0	3242214	(AJ006778) DRIM protein [Homo sapiens]	8.00E-93
3105	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.002	<none></none>	<none></none>	<none></none>
3106	M60562	Mus musculus Mhc class II A beta polypeptide, partial cds (exons 3 and 4)	1.10E+00	<none></none>	<none></none>	<none></none>
3107		Human DNA fragmentation factor-45 mRNA, complete cds	e-133		DNA FRAGMENTATI ON FACTOR-45 factor-45 [Homo sapiens]	7e-013
3108		S.salar microsatellite DNA, CA-repeat (AC)11.5	3.50E-01	3879530	(Z49130) cDNA EST yk486b9.3 comes from this gene; cDNA EST yk486b9.5 comes from this gene	0.0001
3109		S.salar microsatellite DNA, CA-repeat (AC)11.5	3.50E-01	3879530	(Z49130) cDNA EST yk486b9.3 comes from this gene; cDNA EST yk486b9.5 comes from this gene	0.0001

	1	Nearest Neighbor	·	Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3110	AF052135	Homo sapiens clone 23625 mRNA sequence	4e-033	4098124	(U73522) STAM SH3 domain associating molecule [Homo sapiens]	5e-033	
3111	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	6e-005	<none></none>	<none></none>	<none></none>	
3112	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-009	1351538	HYPOTHETICAL PROTEIN MG306 Mycoplasma genitalium (SGC3) >gi 3844885 (U39711) conserved hypothetical protein [Mycoplasma genitalium]	1.4	
3113	L78777	Homo sapiens (subclone 2_b8 from P1 H49) DNA sequence	1.30E-01	<none></none>	<none></none>	<none></none>	
3114	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.002	<none></none>	<none></none>	<none></none>	
3115	U29917	Human AMP deaminase (AMPD3) gene, exon 8 and 9.	3.00E-10	<none></none>	<none></none>	<none></none>	
3116	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-009	<none></none>	<none></none>	<none></none>	
3117		Archaeoglobus fulgidus section 69 of 172 of the complete genome	0.14	<none></none>	<none></none>	<none></none>	
3118		Homo sapiens spindle pole body protein spc98 homolog GCP3 mRNA, complete cds	0	2801699	(AF042378) spindle pole body protein spc98 homolog GCP3	4e-080	

		Nearest Neighbor	<u> </u>	T	Nearest Neighbor	
	(	BlastN vs. Genbanl	<b>(</b> )	(BlastX	vs. Non-Redundant	Proteins)
SE( ID		N DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
311		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>
3120		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-009	1351538	HYPOTHETICAL PROTEIN MG306 Mycoplasma genitalium (SGC3) >gi 3844885 (U39711) conserved hypothetical protein [Mycoplasma genitalium]	5
3121		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7.00E-07	133361	DNA-DIRECTED RNA POLYMERASE III 128 KD POLYPEPTIDE (RNA POLYMERASE III SUBUNIT 2) 2.7.7.6) III second-largest chain - fruit fly polymerase III second-largest subunit [Drosophila melanogaster]	4.40E+00
3122	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2.00E-05	<none></none>	<none></none>	<none></none>
3123	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2.00E-05	<none></none>	<none></none>	<none></none>
3124		Homo sapiens mRNA sequence, IMAGE clone 417820	2.00E-69		DPY-19 PROTEIN elegans >gi 156300 (L12018) putative Caenorhabditis elegans]	2e-026

**********	<u> </u>	Vearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID							
3125	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>	
3126	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.60E+00	
3127	M26216	Rat (lambda 20BH0.1) L-type 6-phosphofructo- 2-kinase/fructose- 2, 6- bisphosphatase	4.10E-02	205752	(M94288) Nopp140 [Rattus norvegicus]	1.1	
3128	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5.00E-03	<none></none>	<none></none>	<none></none>	
3129	<none></none>	<none></none>	<none></none>	730888	OCTAPEPTIDE- REPEAT PROTEIN T2 >gi 296382	5.2	
3130	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5.00E-03	<none></none>	<none></none>	<none></none>	
3131	X65446	H.sapiens gene locus DXS278 (S232-RU2) DNA	6e-011	119110	EBNA-1 NUCLEAR PROTEIN herpesvirus 4 (strain B95-8) >gi 1334880 (V01555) BKRF1 encodes EBNA-1 protein, latent cycle gene. [Human herpesvirus 4]	1e-005	

	3	Nearest Neighbor			Nearest Neighbor			
	(	BlastN vs. Genbank		(BlastX v	vs. Non-Redundant l	Proteins)		
SEQ ID		DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3132		H.sapiens gene locus DXS278 (S232-RU2) DNA	6e-011	119110	EBNA-1 NUCLEAR PROTEIN herpesvirus 4 (strain B95-8) >gi 1334880 (V01555) BKRF1 encodes EBNA-1 protein, latent cycle gene. [Human herpesvirus 4]	1e-005		
3133	X72219	C.pasteurianum gap gene	0.015	<none></none>	<none></none>	<none></none>		
3134	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>		
3135	Z26494	S.cerevisiae genes for histone H2A and H2B, trehalase, and hexaprenyl pyrophosphate synthetase	1.1	3581891	(AL031540) hypothetical wtf3 protein	9.70E+00		
3136	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.60E+00		
3137	AL010234	Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 4-55, complete sequence	0.37		(X95910) ftsA [Campylobacter jejuni]	4.2		
3138	U28153	Caenorhabditis elegans UNC-76 (unc-76) gene, complete cds.	0.39	<none></none>	<none></none>	<none></none>		
3139	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8.00E-07	<none></none>	<none></none>	<none></none>		

	<u> </u>	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3140	J05073	Human phosphoglycerate mutase (PGAM- M) gene, complete cds.	1.00E-13	281501	phenylalanine tRNA ligase (EC 6.1.1.20) beta chain - Thermus aquaticus	7	
3141	M90656	Human gamma-glutamylcysteine synthetase (GCS) mRNA, complete cds.	0	1346190	GLUTAMATE CYSTEINE LIGASE CATALYTIC SUBUNIT (GAMMA- GLUTAMYLCYS TEINE SYNTHETASE) glutamate cysteine ligase (EC 6.3.2.2) heavy chain - human >gi 183039 (M90656) gamma- glutamylcysteine synthetase [Homo sapiens]	2.00E-71	
3142	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	8e-006	951325	(U31517) nuclear receptor XR78E/F [Drosophila melanogaster]	9.4	
3143	AF053551	Homo sapiens metaxin 2 (MTX2) mRNA, nuclear gene encoding mitochondrial protein, complete cds	0.00E+00	3283049	(AF053551) metaxin 2 [Homo sapiens]	1.00E-79	
3144	AF088034	Homo sapiens full length insert cDNA clone ZC24F03	e-125	1353059	HYPOTHETICAL 27.4 KD PROTEIN IN MER2-BNA1 INTERGENIC REGION >gi 1077874 pir  S 57042 hypothetical protein YJR024c - yeast (Saccharomyces cerevisiae)	9e-023	

		Nearest Neighbor		Norwart Naighbar			
	(I	BlastN vs. Genbank	)	Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID					>gi 1015663 (Z49524) ORF YJR024c gene product [Saccharomyces cerevisiae]	1 VALUE	
3145	AF087973	Homo sapiens full length insert cDNA clone YU79H10	1e-033	<none></none>	<none></none>	<none></none>	
3146	AF032456	Homo sapiens ubiquitin conjugating enzyme G2	8.00E-07	<none></none>	<none></none>	<none></none>	
3147	Y12259	R.norvegicus mRNA for Kir3.1 protein	6e-058	<none></none>	<none></none>	<none></none>	
3148	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2.00E-07	<none></none>	<none></none>	<none></none>	
3149	X97154	D.willistoni mitochondrial 12S rRNA gene	1.20E+00		(Z81490) similar to WD domain, Gbeta repeats (2 domains); cDNA EST EMBL:T00482 comes from this gene; cDNA EST EMBL:T00923 comes from this gene; cDNA EST yk449d4.3 comes from this gene; cDNA EST yk449d4.5 comes from this gene; cDNA EST yk449d4.5 comes from this gene;	7e-016	
3150		Saccharomyces cerevisiae chromosome XII cosmid L2142	1.20E-01	<none></none>	<none></none>	<none></none>	

	Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3151	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	172012	(M12087) thr- tRNA-synthetase [Saccharomyces cerevisiae]	0.21	
3152	L78777	Homo sapiens (subclone 2_b8 from P1 H49) DNA sequence	1.30E-01	<none></none>	<none></none>	<none></none>	
3153	AF053551	Homo sapiens metaxin 2 (MTX2) mRNA, nuclear gene encoding mitochondrial protein, complete cds	0.00E+00	3283049	(AF053551) metaxin 2 [Homo sapiens]	1.00E-79	
3154	X53616	C.domesticus calnexin (pp90) mRNA	1.1	<none></none>	<none></none>	<none></none>	
3155	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.043	<none></none>	<none></none>	<none></none>	
3156	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.002	3327080	(AB014533) KIAA0633 protein [Homo sapiens]	4.2	
3157	U60337	Homo sapiens beta-mannosidase mRNA, complete cds	0	3024091	BETA- MANNOSIDASE PRECURSOR beta-mannosidase [Homo sapiens]	4e-068	
3158	U32790	Haemophilus influenzae Rd section 105 of 163 of the complete genome	1.1	<none></none>	<none></none>	<none></none>	
3159	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.12	<none></none>	<none></none>	<none></none>	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3160	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-007	1351696	HYPOTHETICAL 30.4 KD PROTEIN C3H1.13 IN CHROMOSOME 1>gi 1103514 (Z68144) unknown	1.5	
3161	U50535	Human BRCA2 region, mRNA sequence CG006	4e-012	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	4.5	
3162	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	2132302	hypothetical protein YPR144c - yeast similarity near C-terminus to RNA Polymerase beta subunit (Swiss Prot. accession number P11213) and CCAAT-binding transcription factor (PIR accession number A36368) [Saccharomyces cerevisiae]	4e-022	
3163	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
3164	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-008	3123086	HYPOTHETICAL PROTEIN MJ1050 Methanococcus jannaschii >gi 1499895 (U67548) conserved hypothetical protein [Methanococcus jannaschii]	1.3	
3165	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.005	<none></none>	<none></none>	<none></none>	
3166		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial	0.005	<none></none>	<none></none>	<none></none>	

	1	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
		cds					
3167	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.005	<none></none>	<none></none>	<none></none>	
3168	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-011	833783	(X14338) NADH:ubiquinone oxidoreductase (428 AA) [Bos taurus]	0.17	
3169	M20918	C.thummi piger haemoglobin (Hb) gene DNA, complete cds.	0.12	2496813	HYPOTHETICAL 59.9 KD PROTEIN B0304.5 IN CHROMOSOME	0.12	
-					II >gi 1041884 (U39472) B0304.5 gene product [Caenorhabditis elegans]		
3170	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-011	100827	NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - wheat mitochondrion	4.1	
3171	U28153	Caenorhabditis elegans UNC-76 (unc-76) gene, complete cds.	0.38	<none></none>	<none></none>	<none></none>	
3172	AJ008065	Chrysolina bankii 16S rRNA gene, mitotype B2	0.045	<none></none>	<none></none>	<none></none>	
3173	AB014591	Homo sapiens mRNA for KIAA0691 protein, complete cds	7e-057	3327196	(AB014591) KIAA0691 protein [Homo sapiens]	8e-007	
3174		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-007	3184082	(AL023781) N- terminal acetyltransferase 1 [Schizosaccharom yces pombe]	1e-036	

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3175	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	3219914	HYPOTHETICAL 16.8 KD PROTEIN C30D10.04 IN CHROMOSOME II >gi 2276353 gnl PI D e330328 pombe]			
3176	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.002	133361	DNA-DIRECTED RNA POLYMERASE III 128 KD POLYPEPTIDE (RNA POLYMERASE III SUBUNIT 2) 2.7.7.6) III second-largest chain - fruit fly polymerase III second-largest subunit [Drosophila melanogaster]	4.3		
3177	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	2e-006	2429362	(AF020261) proline rich protein [Santalum album]	0.033		
3178	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7e-007	3641258	(AF064554) ventral anterior homeobox- containing protein 1 [Mus musculus]	0.68		
3179		Homo sapiens mRNA for KIAA0780 protein, partial cds	3e-041	3327168	(AB014577) KIAA0677 protein [Homo sapiens]	2e-021		
3180		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.002	<none></none>	<none></none>	<none></none>		
3181		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-011		(AF062378) calmodulin- binding protein SHA1 [Mus musculus]	5e-006		

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3182	Z96207	H.sapiens telomeric DNA sequence, clone 12PTEL049, read 12PTELOO049.s eq	8e-008	<none></none>	<none></none>	<none></none>	
3183	AB017026	Mus musculus mRNA for oxysterol-binding protein, complete cds	0	3882265	(AB018315) KIAA0772 protein [Homo sapiens]	2e-091	
3184	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-009	<none></none>	<none></none>	<none></none>	
3185	X05283	Drosophila melanogaster PKCG7 gene exons 7-14 for protein kinase C	4.6	<none></none>	<none></none>	<none></none>	
3186	AF026069	Homo sapiens phosphomevalona te kinase (HUMPMKI) gene, partial cds	0.42	<none></none>	<none></none>	<none></none>	
3187	AF052573	Homo sapiens DNA polymerase eta (POLH) mRNA, complete cds	0	3510695	(AF052573) DNA polymerase eta [Homo sapiens]	4e-011	
3188	M80198	Human FKBP-12 pseudogene, clone lambda- 512, 5' flank and complete cds.	5e-014	2315521	(AF016452) similar to the beta transducin family	4e-027	
3189	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-008	<none></none>	<none></none>	<none></none>	
3190	AJ001296	Notophthalmus viridescens mRNA for cytokeratin 8	0.38	1175412	HYPOTHETICAL 24.2 KD PROTEIN C13A11.03 IN CHROMOSOME I >gi 984224 (Z54096) unknown	2e-020	

		Nearest Neighbor		T	Nearest Neighbor		
	(E	BlastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE	
3191	Z60048	H.sapiens CpG DNA, clone 187a9, reverse read cpg187a9.rt1a.	4e-054	547662	HEPATOCYTE NUCLEAR FACTOR 3-BETA HNF-3 beta - mouse >gi 402191 (X74937) HNF- 3beta [Mus musculus]	1e-020	
3192	U95760	Drosophila melanogaster strawberry notch (sno) mRNA, complete cds	3e-071	2078282	(U95760) Sno [Drosophila melanogaster]	3e-068	
3193	L09604	Homo sapiens differentiation-dependent A4 protein mRNA, complete cds.	2e-035	<none></none>	<none></none>	<none></none>	
3194	AF054994	Homo sapiens clone 23832 mRNA sequence	0.12	<none></none>	<none></none>	<none></none>	
3195	AF026069	Homo sapiens phosphomevalona te kinase (HUMPMKI) gene, partial cds	0.42	<none></none>	<none></none>	<none></none>	
3196	AF026069	Homo sapiens phosphomevalona te kinase (HUMPMKI) gene, partial cds	0.42	<none></none>	<none></none>	<none></none>	
3197		Homo sapiens mRNA for KIAA0449 protein, partial cds	0.015		GLYCOPROTEIN E PRECURSOR 1 >gi 59566 gnl PID  e312380 (X14112) virion glycoprotein E [human herpesvirus 1] >gi 59882 (X02138) glycoprotein gE (Us8) [Human herpesvirus 1] >gi 291496 (L00036) gE protein [Human herpesvirus 1]	8.3	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)	15		(BlastX vs. Non-Redundant Proteins)  ACCESSION   DESCRIPTION   P VALUE		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE	
3198	L07040	pFNeo eukaryotic expression vector, complete sequence.		2072972	(U93572) putative p150 [Homo sapiens]	1e-019	
3199	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.002	<none></none>	<none></none>	<none></none>	
3200	M98502	Mus musculus protein encoding twelve zinc finger proteins (pMLZ-4) mRNA, complete cds.	5e-014	<none></none>	<none></none>	<none></none>	
3201	M95098	Bos taurus lysozyme gene (cow 2), complete cds	1.1	3882205	(AB018285) KIAA0742 protein [Homo sapiens]	2e-034	
3202	U49169	Dictyostelium discoideum V- ATPase A subunit (vatA) mRNA, complete cds	0.12	2126116	cymH protein - Klebsiella oxytoca >gi 854235	4.2	
3203	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-006	2911548	(Y15173) E2 protein [Human papillomavirus type 75]	0.39	
3204	Z57610	H.sapiens CpG DNA, clone 187a10, reverse read cpg187a10.rt1a.	7e-090	417134	HEPATOCYTE NUCLEAR FACTOR 3-BETA norvegicus]	5e-019	
3205	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-006	4104093	(AF031642) urea transporter UT4 [Rattus norvegicus]	0.51	
3206	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.0002	<none></none>	<none></none>	<none></none>	
3207	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
3208	<none></none>	<none></none>	<none></none>	2252814	(AF006492) FOG [Mus musculus]	3.4	

		Nearest Neighbor	<del> </del>	<del></del>	Nearest Neighbor		
		BlastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID	<u> </u>				DECERN HON	I VALUE	
3209	AF035940	Homo sapiens MAGOH mRNA, complete cds	e-131	2330011	(AF007862) mm- Mago [Mus musculus] >gi 2909828 (AF035939) similar to mago nashi [Mus musculus] >gi 2909830	4e-044	
3210	U49169	Dictyostelium discoideum V- ATPase A subunit (vatA) mRNA, complete cds	0.12	1942101	Porcine Ribonuclease Inhibitor Complexed With Ribonuclease A	1.1	
3211	AF054994	Homo sapiens clone 23832 mRNA sequence	0.12	<none></none>	<none></none>	<none></none>	
3212	AF068627	Mus musculus DNA cytosine-5 methyltransferase 3B2 (Dnmt3b) mRNA, alternatively spliced, complete cds	0.0005	1869835	(Z86099) protein kinase [human herpesvirus 2]	0.86	
3213	X68553	C.elegans repetitive DNA sequence	0.41	854065	(X83413) U88 [Human herpesvirus 6]	7e-007	
3214	X68553	C.elegans repetitive DNA sequence	0.41	854065	(X83413) U88 [Human herpesvirus 6]	7e-007	
3215	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	6e-005	<none></none>	<none></none>	<none></none>	
3216		Homo sapiens clone 23832 mRNA sequence	0.12	<none></none>	<none></none>	<none></none>	
3217		Drosophila melanogaster strawberry notch (sno) mRNA, complete cds	3e-071		(U95760) Sno [Drosophila melanogaster]	3e-068	
3218	1	P.tetraurelia alpha-51D gene	0.38	<none></none>	<none></none>	<none></none>	

	1	Nearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3219	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
3220	AF067212	Caenorhabditis elegans cosmid F37F2	0.005	<none></none>	<none></none>	<none></none>	
3221	Y08844	L.esculentum PR1a2 gene	1.1	<none></none>	<none></none>	<none></none>	
3222	Y08844	L.esculentum PR1a2 gene	1.1	<none></none>	<none></none>	<none></none>	
3223	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6.00E-05	<none></none>	<none></none>	<none></none>	
3224	U08214	Rattus sp. DNA binding protein (URE-B1) mRNA, complete cds.	1.1	477513	mesoderm development regulatory protein Sna - mouse >gi 54121 (X67253) sna [Mus musculus]	1.1	
3225	L19713	Human dematin (HRD1) mRNA, complete cds.	0.051	<none></none>	<none></none>	<none></none>	
3226	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.043	2645389	(U83858) NADH dehydrogenase subunit 4 [Onychomys leucogaster]	7.5	
3227	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5.00E-03	2662477	(AF034804) LACK [Leishmania major]	3e-011	
3228	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
3229	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	6.20E+00	

		Nearest Neighbor			Nearest Neighbor			
CEO		lastN vs. Genbank)			vs. Non-Redundant			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3230	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.0005	<none></none>	<none></none>	<none></none>		
3231	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.0005	<none></none>	<none></none>	<none></none>		
3232	AF036685	Caenorhabditis elegans cosmid C05B10	0.38	<none></none>	<none></none>	<none></none>		
3233	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
3234	AL010153	Plasmodium falciparum DNA *** SEQUENCING	6e-005	<none></none>	<none></none>	<none></none>		
		IN PROGRESS  *** from contig 3-80, complete sequence						
3235	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	5.00E-04	<none></none>	<none></none>	<none></none>		
3236	U28153	Caenorhabditis elegans UNC-76 (unc-76) gene, complete cds.	0.39	<none></none>	<none></none>	<none></none>		
3237		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	<none></none>	<none></none>	<none></none>		
3238		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	<none></none>	<none></none>	<none></none>		
3239	I	Cloning vector pCAT-Enhancer	5.00E-77	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-015		

		Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)	T =	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3240	AG000140	Homo sapiens genomic DNA, 21q region, clone: T171X2	1.60E-01	2494505	HEPATOCYTE NUCLEAR FACTOR 3 FORKHEAD HOMOLOG 4 (HFH-4) >gi 2137385 pir  14 9734 HNF-3/fork-head homolog-4 - mouse >gi 550488 (L13204) HNF- 3/fork-head homolog-4 [Mus musculus]	7.5	
3241	L77886	Human protein tyrosine phosphatase mRNA, complete cds	1.00E-21	139560	SATELLITE RNA 48 KD PROTEIN	5.9	
3242	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-008	3879988	(Z68318) T21B10.4 [Caenorhabditis elegans]	7.9	
3243	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7e-007	3184286	(AC004136) hypothetical protein [Arabidopsis thaliana]	7.7	
3244	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	5.00E-04	<none></none>	<none></none>	<none></none>	
3245	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.005	<none></none>	<none></none>	<none></none>	
3246	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.005	<none></none>	<none></none>	<none></none>	
3247	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	2.00E-05	1050849	(X83742) MAP kinase phosphatase [Xenopus laevis]	4.5	

		Nearest Neighbor			Nearest Neighbor			
CEC		lastN vs. Genbank)	I	(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3248	AF084186	Rattus norvegicus alpha-fodrin (A2A) mRNA, complete cds	0.39	3123155	HYPOTHETICAL 49.0 KD TRP- ASP REPEATS CONTAINING PROTEIN F55F8.5 IN CHROMOSOME I family [Caenorhabditis elegans]	5.00E-29		
3249	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5.00E-04	3293508	(AF069188) NADH dehydrogenase 1 [Ephedrus laevicollis]	0.3		
3250	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	3243110	(AF034976) unknown [Pilayella littoralis]	4.6		
3251	M77812	Rabbit myosin heavy chain mRNA, complete cds.	0.58	3876408	(Z81069) Similarity to Yeast hypothetical 65.2 KD protein (SW:P36076); cDNA EST yk393e9.3 comes from this gene; cDNA EST yk393e9.5 comes from this gene [Caenorhabditis elegans]	3.1		
3252	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>		
3253	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7e-007	1351841	ISOCITRATE LYASE (ISOCITRASE) lyase [Lycopersicon esculentum]	6.00E+00		
3254	Z50144	R.norvegicus mRNA for kynurenine/alpha- aminoadipate aminotransferase	2.00E-76	1050752	(Z50144) kynurenine/alpha- aminoadipate aminotransferase	6e-033		

	1	Nearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SÉQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3255	Z50144	R.norvegicus mRNA for kynurenine/alpha- aminoadipate aminotransferase	2.00E-76	1050752	(Z50144) kynurenine/alpha- aminoadipate aminotransferase	6e-033	
3256	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.043	109340	pepsin (EC 3.4.23) II-2/3 precursor - rabbit	4.5	
3257	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-007	3875769	(Z35662) similar to Approximately 25 cadherin-repeats, 3 EGF domains and one Laminin G domain; cDNA EST EMBL:D27303 comes from this gene; cDNA EST EMBL:D27305 comes from this gene; cDNA EST EMBL:D27304 comes from this gene; >gi 3876224 gnl PI D e134589	4.20E-01	
3258	AF041059	Homo sapiens WSCR4 gene, exon 7 and partial cds	5.90E-02	<none></none>	<none></none>	<none></none>	
3259		Homo sapiens clone 23832 mRNA sequence	0.13	<none></none>	<none></none>	<none></none>	
3260	,	Arabidopsis thaliana 2,3- oxidosqualene- triterpenoid cyclase mRNA, complete cds	5.60E-01		HYPOTHETICAL 24.2 KD PROTEIN C13A11.03 IN CHROMOSOME I >gi 984224 (Z54096) unknown	2e-009	

		Nearest Neighbor			Nearest Neighbor		
	(H	BlastN vs. Genbank	)	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
3261	AL010240	Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 4-64, complete sequence	1.3	3882205	(AB018285) KIAA0742 proteir [Homo sapiens]	5.00E-10	
3262	L20566	Aspergillus niger acid phospatase complete cds.	3.9	3777583	(AF084481) transmembrane protein [Homo sapiens]	5.00E+00	
3263	U12202	Human ribosomal protein S24 (rps24) gene, complete cds	3.80E+00	<none></none>	<none></none>	<none></none>	
3264	U70139	Mus musculus putative CCR4 protein mRNA, partial cds	0	2251234	(U70139) putative CCR4 protein [Mus musculus]	6e-093	
3265	AF055666	Mus musculus kinesin light chain 2 (Klc2) mRNA, complete cds	0.53	3387889	(AF070532) emb- 5 [Homo sapiens]	0.56	
3266	AF077618	Homo sapiens p73 gene, exon 3	0.4	127709	MYOBLAST DETERMINATIO N PROTEIN 1	7.8	
3267	AF072250	Homo sapiens methyl-CpG binding protein MBD4	e-161		(AF072250) methyl-CpG binding protein MBD4 [Homo sapiens]	2.00E-47	
3268	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	8e-009	886048	(U25686) E93 [Drosophila melanogaster]	1.8	
3269		Homo sapiens genomic DNA, 21q region, clone: 125H6N26	0.0005	<none></none>	<none></none>	<none></none>	
3270		Homarus americanus clone LOB5 farnesoic acid o- methyltransferase mRNA, complete cds.	1.40E-02	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		Nearest Neighbor			
	<u> </u>	lastN vs. Genbank)		`	s. Non-Redundant P		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3271	AF068627	Mus musculus DNA cytosine-5 methyltransferase 3B2 (Dnmt3b) mRNA, alternatively spliced, complete cds	0.0005	1698496	(U53444) LW- amid and MW- amid-containing preprohormone	4.40E+00	
3272	U60022	Mus musculus antigen processing- associated transporter TAP1-k mRNA, complete cds	3.50E+00	2498941	SPLICEOSOME ASSOCIATED PROTEIN 62 spliceosome- associated protein SAP 62 - human >gi 409219	0.23	
3273	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-005	<none></none>	<none></none>	<none></none>	
3274	U24676	Drosophila melanogaster twinstar (tsr) gene, complete cds	1.20E+00	<none></none>	<none></none>	<none></none>	
3275	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	1.50E-02	<none></none>	<none></none>	<none></none>	
3276	AF054994	Homo sapiens clone 23832 mRNA sequence	0.13	<none></none>	<none></none>	<none></none>	
3277	AF072250	Homo sapiens methyl-CpG binding protein MBD4	e-161	3800809	(AF072250) methyl-CpG binding protein MBD4 [Homo sapiens]	2.00E-47	
3278	AF054994	Homo sapiens clone 23832 mRNA sequence	0.13	<none></none>	<none></none>	<none></none>	
3279	AF054994	Homo sapiens clone 23832 mRNA sequence	0.13	<none></none>	<none></none>	<none></none>	
3280	AF054994	Homo sapiens clone 23832 mRNA sequence	0.13	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		Nearest Neighbor			
SEQ	ACCESSIO	(BlastN vs. Genbank)		(Blast∑	vs. Non-Redundant		
ID			P VALUE	ACCESSIO	N DESCRIPTION	P VALU	
3281		clone 23832 mRNA sequence	0.13	<none></none>	<none></none>	<none< td=""></none<>	
3282	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	2e-005	<none></none>	<none></none>	<none< td=""></none<>	
3283		Gallus gallus clone pNG13 cell division cycle control protein 37 (cdc37) mRNA, complete cds.	0.017	2642625	(AF032118) intersectin [Xenopus laevis]	1.40E+00	
3284	X65279	pWE15 cosmid vector DNA	2e-059	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-015	
3285	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012	<none></none>	<none></none>	<none></none>	
3286	D80005	Human mRNA for KIAA0183 gene, partial cds	0	<none></none>	<none></none>	<none></none>	
3287	U27341	Bos taurus endothelin converting enzyme-2 Sequence 1 from patent US 5736376	1e-096	2136744	endothelin converting enzyme-2 - bovine	2e-047	
3288	M58417	Drosophila melanogaster laminin B2 gene, complete cds.	0.35	1142698	(U26463) NADPH- dependent aldehyde reductase	6.8	
3289	M58417	Drosophila melanogaster laminin B2 gene, complete cds.	0.35	1142698	(U26463) NADPH- dependent aldehyde reductase	6.8	
3290	AF020043	Homo sapiens chromosome- associated polypeptide	0		basement membrane- associated chondroitin proteoglycan Bamacan [Rattus norvegicus]	e-112	

		Nearest Neighbor		Nearest Neighbor		
	,	lastN vs. Genbank)		`	s. Non-Redundant Pr	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3291	U57368	Mus musculus EGF repeat transmembrane protein mRNA, complete cds.	0	1336628	(U57368) EGF repeat transmembrane protein [Mus musculus]	e-101
3292	AB018323	Homo sapiens mRNA for KIAA0780 protein, partial cds	3e-041	3327168	(AB014577) KIAA0677 protein [Homo sapiens]	1e-021
3293	X65279	pWE15 cosmid vector DNA	2e-059	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-015
3294	X71642	M.musculus GEG-154 mRNA	3e-092	<none></none>	<none></none>	<none></none>
3295	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	3879362	(Z81113) similar to DnaJ, prokaryotic heat shock protein, Zinc finger, C2H2 type; cDNA EST yk290e12.5 comes from this gene; cDNA EST yk290e12.3 comes from this gene; cDNA EST yk447h4.5 comes from this gene; cDNA EST yk447h4.5 comes from this gene; cDNA EST yk474e4	3e-005
3296	AB017026	Mus musculus mRNA for oxysterol-binding protein, complete cds	0	3551523	(AB017026) oxysterol-binding protein	e-103
3297	U43431	Human DNA topoisomerase III mRNA, complete cds.	0	2501242	DNA TOPOISOMERAS E III >gi 1292912	6e-069
3298	M35296	Human tyrosine kinase arg gene mRNA.	1.1	2135080	epithelial microtubule- associated protein, 115K - human >gi 414115 (X73882) microtubule associated protein	1.8

	(	Nearest Neighbor BlastN vs. Genbank)		Nearest Neighbor			
SEQ	ACCESSION	DESCRIPTION	P VALUE	(BlastX	vs. Non-Redundant		
ID		DESCRIPTION	PVALUE	ACCESSION	DESCRIPTION	PVALU	
					[Homo sapiens]		
3299	D50646	Mouse mRNA for SDF2, complete	1e-031	2136205	stromal cell- derived factor 2 -	4e-014	
3300	L34732	cds Homo sapiens T- cell receptor beta (TCRB) mRNA	0.35	3875664	human sapiens] (Z83104) predicted using Genefinder	3e-005	
3301	AF030558	Rattus norvegicus phosphatidylinosi tol 5-phosphate 4- kinase gamma mRNA, complete cds	le-013	<none></none>	<none></none>	<none></none>	
3302	X03100	Human HLA- SB(DP) alpha gene	2e-018	<none></none>	<none></none>	<none></none>	
3303	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	2950243	(Z98204) extensin [Hordeum vulgare]	2e-005	
3304	Y13631	Clostridium botulinum P-21, P-47 ntnh, bonT genes	1	<none></none>	<none></none>	<none></none>	
3305	Y13631	Clostridium botulinum P-21, P-47 ntnh, bonT genes	1	<none></none>	<none></none>	<none></none>	
3306		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-011		(U59446) myrosinase- binding protein related protein	0.01	
3307		Butyrivibrio fibrisolvens end1 gene for endoglucanase	0.12		(D64005) hypothetical protein	5.2	
3308		Human mRNA for KIAA0091 gene, complete cds	0		(D42053) KIAA0091 gene product is related to subtilisin. [Homo sapiens]	e-127	

	N	Nearest Neighbor		Nearest Neighbor			
	(Bl	lastN vs. Genbank)		· · · · · · · · · · · · · · · · · · ·	s. Non-Redundant Pr		
SEQ ID	ACCESSION	DESCRIPTION	PVALUE	ACCESSION	DESCRIPTION	P VALUE	
3309	L81800	Homo sapiens (subclone 2_g9 from P1 H31) DNA sequence	2e-006	<none></none>	<none></none>	<none></none>	
3310	L81800	Homo sapiens (subclone 2_g9 from P1 H31) DNA sequence	2e-006	<none></none>	<none></none>	<none></none>	
3311	K01641	Mouse Ig kappa active V-region from 70Z/3 cells.	3.1	<none></none>	<none></none>	<none></none>	
3312	K01641	Mouse Ig kappa active V-region from 70Z/3 cells.	3.1	<none></none>	<none></none>	<none></none>	
3313	U09954	Human ribosomal protein L9 gene, 5' region and complete cds.	e-114	2136121	ribosomal protein L9 - human >gi 607793	3e-027	
3314	M19735	Homo sapiens beta- hexosaminidase beta chain mRNA, complete cds.	0	179462	(M13519) N- acetyl-beta- glucosaminidase prepro-polypeptide	4e-075	
3315	M31760	Human chromosome 9 t(9;22) breakpoint DNA.	2e-016	2981631	(AB012223) ORF2 [Canis familiaris]	0.018	
3316	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-013	495696	(U00067) C. elegans PAR-3 cell polarity protein	2.5	
3317	U61084	Human phorbolin 3 mRNA, complete cds	0	4097433	(U61084) phorbolin 3 [Homo sapiens]	7e-099	
3318	X95161	H.sapiens brca2 gene exon 11 > :: emb A62786 A62 786 Sequence 27 from Patent WO9719110	5e-024	244126	uroporphyrinogen III synthase, UROIIIS [human, Peptide Mutant, 265 aa]	0.12	
3319	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-013	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.9	

13320			Nearest Neighbor			Nearest Neighbor	
D	550	(B					Proteins)
mitotic   phosphoprotein   90 mRNA,   complete cds   2197085   EUKARYOTIC   INITIATION   FACTOR 4F   SUBUNIT P130   (EIF-4F) (MRNA   CAP-BINDING   PROTEIN   COMPLEX   SUBUNIT P130   Sigi539297 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   >gi 35927 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   >gi 35927 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   >gi 35927 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   >gi 35927 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   >gi 35927 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   >gi 35927 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   >gi 35927 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   >gi 35927 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   >gi 35927 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   >gi 35927 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   >gi 35927 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   >gi 35927 pir  B4   8086 translation   initiation factor   eIF-4F TIF4632 - yeast   (Saccharomyces   cerevisiae)   Saccharomyces   cerevisiae   Saccharomyces   cerevisiae   Saccharomyces   Saccharomyces   cerevisiae   Saccharomyces   cerevisiae   Saccharomyces   cerevisiae   Saccharomyces   cerevisiae   Saccharomyces   cerevisiae   Saccharomyces   cerevisiae   Saccharomyces   Carevisiae   Saccharomyces   Carevisiae   Saccharomyces   Carevisiae   Saccharomyces   Carevisiae   Ca	ID			PVALUE	ACCESSION	DESCRIPTION	P VALUE
translation repressor NAT1 mRNA, complete cds  translation repressor NAT1 mRNA, complete cds  translation repressor NAT1 mRNA, complete cds  translation repressor NAT1 mRNA, complete cds  translation repressor NAT1 mRNA, complete cds  translation repressor NAT1 mRNA, complete cds  translation repressor NAT1 mRNA, complete cds  translation repressor NAT1 mRNA, complete cds  translation repressor NAT1 mRNA, complete cds  translation repressor NAT1 mRNA, complete cds  translation repressor NAT1 mRNA, complete cds  translation repressor NAT1 mRNA complete cds  translation			mitotic phosphoprotein 90 mRNA, complete cds			>gi 1041889 bbs 1 69033 267 aa]	7.2
3322   U95094   Xenopus laevis   XL-INCENP   (XL-INCENP)   mRNA, complete   cds	3321	U76112	translation repressor NAT1 mRNA, complete		729818	INITIATION FACTOR 4F SUBUNIT P130 (EIF-4F) (MRNA CAP-BINDING PROTEIN COMPLEX SUBUNIT P130) >gi 539297 pir  B4 8086 translation initiation factor eIF-4F TIF4632 - yeast (Saccharomyces cerevisiae) >gi 295677 (L16924) p130 [Saccharomyces	1.9
XL-INCENP (XL-INCENP) mRNA, complete cds  3324 U43626 Human chromosome 15q11-q13 putative DNA replication origin in the g-	3322		XL-INCENP (XL-INCENP) mRNA, complete	3e-009	2072296	(U95098) mitotic phosphoprotein 44	5.2
chromosome 15q11-q13 putative DNA replication origin in the g-  (AP003333) (CAP003333) (CAP00333) (CAP003333) (CAP00333) (CAP0033) (CAP0		U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-013	495696	elegans PAR-3 cell polarity	2.5
receptor b3 and a5 gene cluster			chromosome 15q11-q13 putative DNA replication origin in the g- aminobutyric acid receptor b3 and a5 gene cluster	,		ORF2-like protein	0.0002
3325 U95102 Xenopus laevis 2e-010 <none> <none> <none> on totic phosphoprotein 90 mRNA, complete cds</none></none></none>	3325	1	mitotic phosphoprotein 90 mRNA,	2e-010	<none></none>	<none></none>	<none></none>

	]	Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)			s. Non-Redundant F			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3326	Z48561	E.coli perA, perB, perC and perD genes	0.38	2576325	(Y12239) env [porcine endogenous retrovirus]	7.4		
3327	Z48561	E.coli perA, perB, perC and perD genes	0.38	2576325	(Y12239) env [porcine endogenous retrovirus]	7.4		
3328	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.002	2576325	(Y12239) env [porcine endogenous retrovirus]	7.4		
3329	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.002	2576325	(Y12239) env [porcine endogenous retrovirus]	7.4		
3330	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	1e-010	1362915	protein-tyrosine kinase (EC 2.7.1.112) STK-1 precursor - human	0.5		
3331	X65319	Cloning vector pCAT-Enhancer	3e-081	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-015		
3332	AB018304	Homo sapiens mRNA for KIAA0761 protein, partial cds	0	3882243	(AB018304) KIAA0761 protein [Homo sapiens]	8e-098		
3333	Y08460	Mus musculus mRNA for Mdes transmembrane protein	1e-085	2225941	(Y08460) Mdes protein [Mus musculus]	8e-071		
3334		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-009	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.1		
3335	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
3336		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-007		(AE001118) P115 protein [Borrelia burgdorferi]	5.2		

		Nearest Neighbor  (PleatNew On in the Control of th					
- F	(	BlastN vs. Genbank)		(BlastX	vs. Non-Redundant I	Proteins)	
SEQ ID			P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3337		Homo sapiens multispanning membrane protein mRNA, complete cds	0	2276460	(U94831) multispanning membrane protein [Homo sapiens]	5e-087	
3338		Human ribosomal protein S10 mRNA, complete cds.	2e-059	133715	40S RIBOSOMAL PROTEIN S10	0.0002	
3339	K01254	Human gastrin gene, complete cds.	5e-005	<none></none>	<none></none>	<none></none>	
3340	U08469	Glycine max 3-methylcrotonyl-CoA carboxylase mRNA, biotin-carrier domain, partial cds.	3e-051	3876562	(Z81074) Similarity to Soybean 3- methylcrotonyl- CoA carboxylase (TR:Q42777); cDNA EST EMBL:M75819 comes from this gene; cDNA EST EMBL:M89099 comes from this gene; cDNA EST EMBL:D32737 comes from this gene; cDNA EST EMBL:D32737 comes from this	1e-073	
3341	AB011139	Homo sapiens mRNA for KIAA0567 protein, partial cds	0	3043658	(AB011139) KIAA0567 protein [Homo sapiens]	e-123	
3342	U07615	Rattus norvegicus mucin mRNA, partial cds.	2e-006		MUCIN 2 PRECURSOR (INTESTINAL MUCIN 2) >gi 454154 (L21998) mucin [Homo sapiens]	0.0007	
3343		Homo sapiens tumorous imaginal discs protein Tid56 homolog (TID1) mRNA, complete cds	e-154	3372677	AF061749) cumorous imaginal discs protein Fid56 homolog	4e-060	

		Nearest Neighbor				
		lastN vs. Genbank)			s. Non-Redundant F	•
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3344	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds		2984587	(AC004472) P1.11659_3 [Homo sapiens]	3e-008
3345	U45998	Onchocerca volvulus MRS3/MRS4 class mitochondrial solute carrier mRNA, complete cds	2e-008	3880433	(Z66521) similar to mitochondrial RNA splicing MSR4 like protein; cDNA EST EMBL:C09217 comes from this gene [Caenorhabditis elegans]	2e-051
3346	U43626	Human chromosome 15q11-q13 putative DNA replication origin in the g- aminobutyric acid receptor b3 and a5 gene cluster	2e-018	2197085	(AF003535) ORF2-like protein [Homo sapiens]	0.0002
3347	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.2
3348	U14972	Human ribosomal protein S10 mRNA, complete cds.	2e-059	133715	40S RIBOSOMAL PROTEIN S10	0.0002
3349	M80198	Human FKBP-12 pseudogene, clone lambda- 512, 5' flank and complete cds.	1.00E-10	2315521	(AF016452) similar to the beta transducin family	1e-022
3350	AB011180	Homo sapiens mRNA for KIAA0608 protein, partial cds	5e-077	3043740	(AB011180) KIAA0608 protein [Homo sapiens]	8e-071
3351	U45858	Zea mays glyceraldehyde-3- phosphate dehydrogenase	4.2	<none></none>	<none></none>	<none></none>

		Nearest Neighbor				
	(	BlastN vs. Genbank	`	(DlastV.	Nearest Neighbor	
SEC	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	vs. Non-Redundant I	
ID				ACCESSION	DESCRIPTION	P VALUE
3352		Zea mays glyceraldehyde-3 phosphate dehydrogenase	4.2	<none></none>	<none></none>	<none></none>
3353		Homo sapiens MAGOH mRNA, complete cds	e-141	2330011	(AF007862) mm- Mago [Mus musculus] >gi 2909828 (AF035939) similar to mago nashi [Mus musculus] >gi 2909830	1e-075
3354	AF035940	Homo sapiens MAGOH mRNA, complete cds	e-141	2330011	(AF007862) mm- Mago [Mus musculus] >gi 2909828 (AF035939) similar to mago nashi [Mus musculus]	1e-075
3355	M24486	Human prolyl 4-hydroxylase alpha subunit mRNA, complete cds, clone PA-11.	e-147		>gi 2909830 (Z69637) Similarity to Human Prolyl 4- hydroxylase alpha subunit (SW:P4HA_HUM AN); cDNA EST yk219g12.5 comes from this gene; cDNA EST yk319d8.5 comes from this gene; cDNA EST yk339d11.5 comes from this gene; cDNA EST yk371c9.3	4e-012
3356		R.norvegicus mRNA for kynurenine/alpha- aminoadipate aminotransferase	3.00E-93	1050752	(Z50144) kynurenine/alpha- aminoadipate aminotransferase	2e-043

	]	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		l `	s. Non-Redundant Pr		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3357	M24486	Human prolyl 4-hydroxylase alpha subunit mRNA, complete cds, clone PA-11.	e-147	3876769	(Z69637) Similarity to Human Prolyl 4- hydroxylase alpha subunit (SW:P4HA_HUM AN); cDNA EST yk219g12.5 comes from this gene; cDNA EST yk319d8.5 comes from this gene; cDNA EST yk339d11.5 comes from this gene; cDNA EST yk339d11.5 comes	4e-012	
3358	U83981	Homo sapiens apoptosis associated protein (GADD34) mRNA, complete cds	0	3258618	(U83981) apoptosis associated protein [Homo sapiens]	8.00E-24	
3359	U30817	Bos taurus very- long-chain acyl- CoA dehydrogenase mRNA, nuclear gene encoding mitochondrial protein, complete cds.	1e-010	2765125	(Y11770) very- long-chain acyl- CoA dehydrogenase [Mus musculus]	4e-013	
3360	Z35094	H.sapiens mRNA for SURF-2	5e-097	2498974	SURFEIT LOCUS PROTEIN 2	4e-046	
3361	Z35094	H.sapiens mRNA for SURF-2	5e-097	2498974	SURFEIT LOCUS PROTEIN 2	4e-046	
3362	Z35094	H.sapiens mRNA for SURF-2	5e-097	2498974	SURFEIT LOCUS PROTEIN 2	4e-046	
3363	Z63829	H.sapiens CpG DNA, clone 90h2, forward read cpg90h2.ft1a	5e-022	1050411	(L43146) nuclear factor I-B1 [Xenopus laevis]	5.4	
3364	AF052573	Homo sapiens DNA polymerase eta (POLH) mRNA, complete cds	0	3510695	(AF052573) DNA polymerase eta [Homo sapiens]	4e-011	

		Nearest Neighbor	<del></del>	r	No.	<del>.</del>
		BlastN vs. Genbank)	<b>,</b>	(RlactY)	Nearest Neighbor vs. Non-Redundant P	
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	
ID			1	, recession	DESCRIPTION	P VALUE
3365	AF092564	Homo sapiens	0	3851586	(AF092564)	6e-052
		chromosome-			chromosome-	00-032
		associated			associated protein-	
		protein-C	1		C [Homo sapiens]	
3366	AF031924	Homo sapiens homeobox transcription factor barx2	2.00E-90	<none></none>	<none></none>	<none></none>
3367	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-011	419712	probable transposase (insertion sequence IS1138) - Mycoplasma pulmonis (SGC3)	2.6
3368	U95102	Xenopus laevis	4e-011	419712	probable probable	2.6
22.60		mitotic phosphoprotein 90 mRNA, complete cds		717/12	transposase (insertion sequence IS1138) - Mycoplasma pulmonis (SGC3)	2.6
3369	M24487	Human prolyl 4-hydroxylase alpha subunit mRNA, complete cds, clone PA-15.	e-125		PROLYL 4- HYDROXYLASE ALPHA SUBUNIT PRECURSOR >gi 66338 pir  DA HUA2 procollagen- proline dioxygenase (EC 1.14.11.2) alpha chain precursor, splice form 2 - human >gi 602675 (U14620) alpha- subunit of prolyl 4-hydroxylase [Homo sapiens]	1e-007

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3370	M24487	Human prolyl 4- hydroxylase alpha subunit mRNA, complete cds, clone PA-15.	e-125	2507090	PROLYL 4- HYDROXYLASE ALPHA SUBUNIT PRECURSOR >gi 66338 pir  DA HUA2 procollagen- proline dioxygenase (EC 1.14.11.2) alpha chain precursor, splice form 2 - human >gi 602675 (U14620) alpha- subunit of prolyl 4-hydroxylase [Homo sapiens]	1e-007	
3371	U45858	Zea mays glyceraldehyde-3- phosphate dehydrogenase	4.2	<none></none>	<none></none>	<none></none>	
3372	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-006	<none></none>	<none></none>	<none></none>	
3373	D50930	Human mRNA for KIAA0140 gene, complete cds	2e-046	<none></none>	<none></none>	<none></none>	
3374	X06461	Herpes simplex virus type I immediate early (IE) gene 3 for transcriptional activator IE175 (= ICP 4)	3.00E-04	2924449	(AL022022) PE_PGRS [Mycobacterium tuberculosis]	4.00E-05	
3375	X06461	Herpes simplex virus type I immediate early (IE) gene 3 for transcriptional activator IE175 (= ICP 4)	3.00E-04	2924449	(AL022022) PE_PGRS [Mycobacterium tuberculosis]	4.00E-05	

		Nearest Neighbor		Nearest Neighbor			
000	(E	BlastN vs. Genbank)		(BlastX	vs. Non-Redundant l	Proteins)	
SEQ ID			P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3376		Homo sapiens mRNA for CDK8 protein kinase > :: emb A61243 A61 243 Sequence 1 from Patent WO9709432	7e-059	<none></none>	<none></none>	<none></none>	
3377		Mycoplasma sp. munIM, munIC and munIR genes.	1.2	<none></none>	<none></none>	<none></none>	
3378		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
3379	M24486	Human prolyl 4- hydroxylase alpha subunit mRNA, complete cds, clone PA-11.	e-147	3876769	(Z69637) Similarity to Human Prolyl 4- hydroxylase alpha subunit (SW:P4HA_HUM AN); cDNA EST yk219g12.5 comes from this gene; cDNA EST yk319d8.5 comes from this gene; cDNA EST yk339d11.5 comes from this gene; cDNA EST yk339d11.5 comes from this gene;	4e-012	
3380		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-006	<none></none>	<none></none>	<none></none>	
3381		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-010	2119163	collagen alpha 1(III) chain precursor - mouse	0.005	
3382	]	Homo sapiens mRNA for TGF- beta activated kinase 1b, complete cds	0	1167506	(D76446) TAK1 (TGF-beta- activated kinase) [Mus musculus]	2e-033	

	1	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3383	D38112	Human mitochondrial DNA, complete sequence	5e-052	14016	(X55654) cytochrome C oxidase II subunit [Homo sapiens]	le-014	
3384	Z96177	H.sapiens telomeric DNA sequence, clone 10QTEL040, read 10QTELOO040.s eq	7e-038	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.035	
3385	Z96177	H.sapiens telomeric DNA sequence, clone 10QTEL040, read 10QTELOO040.s eq	7e-038	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.035	
3386	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-011	2384956	(AF022985) No definition line found [Caenorhabditis elegans]	6e-029	
3387	AF010484	Homo sapiens ICI YAC 9IA12, right end sequence	3e-010	<none></none>	<none></none>	<none></none>	
3388	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-013	113667	!!!! ALU CLASS B WARNING ENTRY !!!!	0.68	
3389	AJ009761	Homo sapiens mRNA for putative dimethyladenosin e transferase, partial		4050050	(AF102147) putative dimethyladenosine transferase [Homo sapiens]	4.00E-46	
3390	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.048	<none></none>	<none></none>	<none></none>	
3391	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.048	<none></none>	<none></none>	<none></none>	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3392	AL022579	Homo sapiens DNA sequence from clone 47K8 on chromosome Xp11.21-11.23, complete sequence [Homo sapiens]	1e-070	<none></none>	<none></none>	<none></none>	
3393	U37454	Human Down Syndrome region of chromosome 21 genomic sequence, clone A31D6-1H7.	0.12	<none></none>	<none></none>	<none></none>	
3394	AF058954	Homo sapiens GTP-specific succinyl-CoA synthetase beta subunit (SCS) mRNA, partial cds	0	3766199	(AF058954) GTP- specific succinyl- CoA synthetase beta subunit [Homo sapiens]	e-122	
3395	Ü95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	3043582	(AB011101) KIAA0529 protein [Homo sapiens]	2e-012	
3396	Z23090	H.sapiens mRNA for 28 kDa heat shock protein.	3e-079	1709972	60S RIBOSOMAL PROTEIN L10A (CSA-19)	2e-025	
3397		Human mRNA for KIAA0101 gene, complete cds	0	3183216	HYPOTHETICAL PROTEIN KIAA0101 sapiens]	2e-026	
3398	D17577	Mouse mRNA for kinesin-like protein (Kif1b), complete cds	e-121	2497524	KINESIN-LIKE PROTEIN KIF1B mouse >gi 407339 gnl PI D d1005029 (D17577) Kif1b [Mus musculus]	1e-048	
3399		Homo sapiens clone 559 unknown mRNA, complete sequence	0	4050050	(AF102147) putative dimethyladenosine transferase [Homo sapiens]	1e-048	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3400	AC000043	Homo sapiens Chromosome 22q13 Cosmid Clone p74a8, complete sequence [Homo sapiens]	7e-006	<none></none>	<none></none>	<none></none>	
3401	AC000043	Homo sapiens Chromosome 22q13 Cosmid Clone p74a8, complete sequence [Homo sapiens]	7e-006	<none></none>	<none></none>	<none></none>	
3402	AF031924	Homo sapiens homeobox transcription factor barx2	e-156	<none></none>	<none></none>	<none></none>	
3403	AF031924	Homo sapiens homeobox transcription factor barx2	e-157	3882305	(AB018335) KIAA0792 protein [Homo sapiens]	4.5	
3404	L22473	Human Bax alpha mRNA, complete cds.	0	728945	APOPTOSIS REGULATOR BAX, MEMBRANE ISOFORM ALPHA >gi 539664 pir  A4 7538 bcl-2- associated protein bax alpha splice form - human >gi 388166	9e-075	
3405	U04709	Human adenine phosphoribosyltra nsferase (APRT) gene, 3' flanking region	e-151	113668	!!!! ALU CLASS C WARNING ENTRY !!!!	0.91	
3406	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-008	3064146	(AF036408) mucin-like protein [Trypanosoma cruzi]	7.6	
3407	AF093268	Rattus norvegicus homer-1c mRNA, complete cds	e-171	1913909	(U92079) GLGF- domain protein Homer [Rattus norvegicus]	4e-046	

		Nearest Neighbor			Nearest Neighbor			
	(I	BlastN vs. Genbank)	)	(BlastX	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION		P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3408		Cloning vector DNA, complete sequence.	2.00E-38	987050	(X65335) lacZ gene product [unidentified cloning vector]	3.00E-03		
3409	U78109	Mus musculus prepro-neurturin mRNA, complete cds	1.2	2506998	STANNIOCALCI N (STC) (CORPUSCLES OF STANNIUS PROTEIN) (CS) (HYPOCALCIN) (TELEOCALCIN)	1.2		
3410	Z96177	H.sapiens telomeric DNA sequence, clone 10QTEL040, read 10QTELOO040.s eq	5e-013	<none></none>	<none></none>	<none></none>		
3411	D50930	Human mRNA for KIAA0140 gene, complete cds	0.00E+00	1235974	(X96713) collagen [Globodera pallida]	5.8		
3412	D50930	Human mRNA for KIAA0140 gene, complete cds	2e-046	<none></none>	<none></none>	<none></none>		
3413	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	le-010	<none></none>	<none></none>	<none></none>		
3414	L01777	Yersinia pseudotuberculosi s (group IIA) rfb gene cluster	1.20E-01	<none></none>	<none></none>	<none></none>		
3415	D17577	Mouse mRNA for kinesin-like protein (Kiflb), complete cds	e-130		KINESIN-LIKE PROTEIN KIF1B mouse >gi 407339 gnl PI D d1005029 (D17577) Kif1b [Mus musculus]	le-049		
3416		Homo sapiens mRNA for KIAA0697 protein, partial cds	2e-067		(AB014597) KIAA0697 protein [Homo sapiens]	6e-050		

	n n	Nearest Neighbor		Nearest Neighbor			
	(B)	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3417	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1.00E-11	<none></none>	<none></none>	<none></none>	
3418	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
3419	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
3420	AB014597	Homo sapiens mRNA for KIAA0697 protein, partial cds	2e-067	3327208	(AB014597) KIAA0697 protein [Homo sapiens]	6e-050	
3421	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5e-014	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.5	
3422	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8.00E-08	1176456	(\$79774) bile salt- dependent lipase, BSDL {EC 3.1.1 } [human, fetal pancreas, Peptide Partial, 720 aa] [Homo sapiens]	9.4	
3423	AF100661	Caenorhabditis elegans cosmid H20E11	0.39	<none></none>	<none></none>	<none></none>	
3424	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	2.00E-04	<none></none>	<none></none>	<none></none>	
3425	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9.00E-10	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor			Nearest Neighbor			
SEQ	(I ACCESSION	BlastN vs. Genbank			s. Non-Redundant	Proteins)		
ID		DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3426	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9.00E-10	<none></none>	<none></none>	<none></none>		
3427	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-05	3056592	(AC004255) T1F9.13 [Arabidopsis thaliana]	10		
3428	U89676	Candida albicans putative membrane protein (CSP37) gene, complete cds	0.12	<none></none>	<none></none>	<none></none>		
3429	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5e-014	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.5		
3430	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
3431	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-07	<none></none>	<none></none>	<none></none>		
3432	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-07	<none></none>	<none></none>	<none></none>		
3433	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-07	<none></none>	<none></none>	<none></none>		
3434		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4.00E-13	<none></none>	<none></none>	<none></none>		
3435		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4.00E-13	<none></none>	<none></none>	<none></none>		

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3436	AB014597	Homo sapiens mRNA for KIAA0697 protein, partial cds	2e-067	3327208	(AB014597) KIAA0697 protein [Homo sapiens]	6e-050	
3437	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-06	1360669	collagen alpha 1(V) chain precursor - human sapiens]	1.8	
3438	U65297	Geomys breviceps cytochrome b (cytb) gene, mitochondrial gene encoding mitochondrial protein, complete cds	3.50E+00	<none></none>	<none></none>	<none></none>	
3439	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-06	3914965	TOXIN BMK-X PRECURSOR (BMK10) (BMK M10) (NEUROTOXIN M10) > gi 3138981 (AF062563) neurotoxin M10 precursor [Mesobuthus martensii]	4	
3440	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-06	3914965	TOXIN BMK-X PRECURSOR (BMK10) (BMK M10) (NEUROTOXIN M10) >gi 3138981 (AF062563) neurotoxin M10 precursor [Mesobuthus martensii]	4	
3441	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-011	3413900	(AB007938) KIAA0469 protein [Homo sapiens]	1.40E-02	

	(1	Nearest Neighbor BlastN vs. Genbank	.\	(D) (2)	Nearest Neighbor	
SEQ	ACCESSION	DESCRIPTION	P VALUE	(Blast X	vs. Non-Redundant	
ID	1.ccEbbioi	DESCRIPTION	PVALUE	ACCESSION	DESCRIPTION	P VALUI
3442	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1.00E-11	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	4.20E+00
3443	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1.00E-11	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	4.20E+00
3444	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8.00E-08	1176456	(S79774) bile salt- dependent lipase, BSDL {EC 3.1.1 } [human, fetal pancreas, Peptide Partial, 720 aa] [Homo sapiens]	9.4
3445	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4.00E-13	<none></none>	<none></none>	<none></none>
3446	U91543	Homo sapiens zinc-finger helicase (hZFH) mRNA, complete cds	1.00E-61	2961557	(AF050199) putative peroxisome microbody protein 175.1	3.70E+00
3447	X75258	H.sapiens DNA from recombination area	1.40E-02	1143020	(U28974) ORF1 [Spiroplasma virus]	9.5
3448		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	8.00E-08	<none></none>	<none></none>	<none></none>
3449		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-07	ľ	bat2 protein - human	0.055

	Nearest Neighbor			Nearest Neighbor			
	(B)	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3450	AL022321	Homo sapiens DNA sequence from PAC 20O8 on chromosome 22q12.1-12.3. Contains exons 13 and 14 of the SLC5A1 (SGLT1) gene for solute carrier family 5 Sodium- Glucose Cot	1.10E+00	3063453	(AC003981) F22O13.15 [Arabidopsis thaliana]	7.2	
3451	AF060798	Homo sapiens myristilated and palmitylated serine-threonine kinase MPSK (MPSK1) mRNA, complete cds	0.00E+00	3372666	(AF060798) myristilated and palmitylated serine-threonine kinase MPSK [Homo sapiens]	2e-067	
3452	AF080399	Drosophila melanogaster mitotic checkpoint control protein kinase BUB1 (Bub1) mRNA, complete cds	1.1	3184082	(AL023781) N- terminal acetyltransferase 1 [Schizosaccharom yces pombe]	1e-033	
3453	AF041259	Homo sapiens breast cancer putative transcription factor (ZABC1) mRNA, complete cds	0.00E+00	3879065	(Z81576) R10E8.3 [Caenorhabditis elegans]	9.7	
3454	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3.70E-01	549359	MINOR CAPSID PROTEIN L2 type 26 > gi 396962 (X74472) late protein [Human papillomavirus type 26]	0.097	
3455	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2.00E-06	2746890	(AF040655) No definition line found [Caenorhabditis elegans]	9.1	

		Nearest Neighbor			Nearest Neighbor		
		BlastN vs. Genbank	)	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION		P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3456	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-005	3874316	(Z81470) predicted using Genefinder	6.8	
3457	V01399	Defective Semlik forest virus RNA. Derived by serial undiluted passaging of the virus in baby hamster kidney cells > :: gb L00017 SFVD IB semliki forest virus defective interfering (18s di) rna di309.		2496616	HYPOTHETICAL 38.5 KD PROTEIN Y4EE	2.1	
3458	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4.60E-02	<none></none>	<none></none>	<none></none>	
3459	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6.00E-06	<none></none>	<none></none>	<none></none>	
3460	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.014	630844	NADH dehydrogenase chain 2 - fruit fly dehydrogenase subunit 2 [Drosophila erecta]	7.3	
3461		Gorilla gorilla ABC-transporter (TAP2) mRNA, complete cds	4.70E-01	2058691	(U94836) ERPROT 213-21 [Homo sapiens]	4.3	
3462		Methanococcus jannaschii section 66 of 150 of the complete genome	4.10E-02		HYPOTHETICAL 82 KD AVIRULENCE PROTEIN IN AVRBS3 REGION >gi 77844 pir  JQ0 317 hypothetical 82K protein - Xanthomonas	7.3	

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
					campestris pv. vesicatoria			
3463	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4.00E-12	<none></none>	<none></none>	<none></none>		
3464	U65297	Geomys breviceps cytochrome b (cytb) gene, mitochondrial gene encoding mitochondrial protein, complete cds	3.50E+00	<none></none>	<none></none>	<none></none>		
3465	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
3466	U36266	Human beta- prime-adaptin (BAM22) gene, exons 18 and 19	1.20E+00	<none></none>	<none></none>	<none></none>		
3467	AB018327	Homo sapiens mRNA for KIAA0784 protein, partial cds	0	3882289	(AB018327) KIAA0784 protein [Homo sapiens]	e-103		
3468	AB018327	Homo sapiens mRNA for KIAA0784 protein, partial cds	0	3882289	(AB018327) KIAA0784 protein [Homo sapiens]	e-103		
3469	U66789	Human laminin alpha 2 chain (LAMA2) gene, exon 57	4.80E-02	3873753	(Z66519) similar to phytoene synthase precursor; cDNA EST yk340f7.3 comes from this gene; cDNA EST yk340f7.5 comes from this gene [Caenorhabditis elegans]	3e-006		

		Nearest Neighbor		T	Nogrand National	
		BlastN vs. Genbank	1	(BlactY v	Nearest Neighbor s. Non-Redundant P	
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
ID			1 11202	, recession	DESCRIPTION	PVALUE
3470	AB018327	Homo sapiens mRNA for KIAA0784 protein, partial cds	9.00E-88	3882289	(AB018327) KIAA0784 protein [Homo sapiens]	9e-022
3471	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.0002	<none></none>	<none></none>	<none></none>
3472	U67524	Methanococcus jannaschii section 66 of 150 of the complete genome	4.10E-02	140229	HYPOTHETICAL 82 KD AVIRULENCE PROTEIN IN AVRBS3 REGION >gi 77844 pir  JQ0 317 hypothetical 82K protein - Xanthomonas campestris pv. vesicatoria	7.3
3473		Homo sapiens beta-galactoside alpha-2,3- sialyltransferase (SIAT4A) mRNA, complete cds	0.005	<none></none>	<none></none>	<none></none>
3474		Homo sapiens beta-galactoside alpha-2,3- sialyltransferase (SIAT4A) mRNA, complete cds	0.005	<none></none>	<none></none>	<none></none>
3475		Caenorhabditis elegans cosmid 6R55, complete sequence [Caenorhabditis elegans]	1.10E-01	<none></none>	<none></none>	<none></none>

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3476	AF070529	Homo sapiens clone 24525 mRNA sequence	0	3879532	(Z49130) cDNA EST EMBL:D74028 comes from this gene; cDNA EST EMBL:D71354 comes from this gene; cDNA EST EMBL:D76320 comes from this gene; cDNA EST yk486c7.3 comes from this gene; cDNA EST yk486c7.5 comes from this gene; cDNA EST	1.50E+00	
3477	U02567	Mus musculus BALB/c T-cell antigen 4-1BB gene, complete cds.	1.30E-01	2414601	(Z99295) phosphatidyl synthase	5e-005	
3478	AB018327	Homo sapiens mRNA for KIAA0784 protein, partial cds	9.00E-88	3882289	(AB018327) KIAA0784 protein [Homo sapiens]	9e-022	
3479	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-011	2315521	(AF016452) similar to the beta transducin family	2e-006	
3480	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	9e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.5	
3481	Y09077	H.sapiens mRNA for atr gene > :: gb U76308 HSU7 6308 Human protein kinase ATR mRNA, complete cds > :: emb A61385 A61 385 Sequence 1 from Patent WO9709433	0	1235902	(U49844) FRAP- related protein [Homo sapiens]	3e-051	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)	····	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3482	Z48633	H.sapiens mRNA for retrotransposon.	e-165	1177607	(X92485) pva1 [Plasmodium vivax]	1.9	
3483	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5e-013	111978	mucin - rat	2.6	
3484	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.4	
3485	X77335	A.thaliana gene for methyltransferase	0.13	1401051	(U24160) similar to Dvl-1 product encoded by GenBank Accession Number U10115; dishevelled segment polarity protein homolog [Mus musculus]	3.5	
3486	AF038660	Homo sapiens chromosome 1p33-p34 beta- 1,4- galactosyltransfer ase mRNA, complete cds	e-144	2995442	(Y12510) UDPGal:GlcNAc b1,4 galactosyltransfera se [Homo sapiens]	9e-005	
3487		Human kinase substrate HASPP28 gene, 5' flanking region and partial cds	1e-021	2120084	reverse transcriptase - mouse >gi 558908	9.7	
3488		Homo sapiens pleiotrophin (PTN) gene, exons UV3, UV2 and UV1	8e-060		GAG POLYPROTEIN (CONTAINS: CORE PROTEIN P15; INNER COAT PROTEIN P12; CORE SHELL PROTEIN P30) >gi 74562 pir  FO VDA gag polyprotein - avian spleen necrosis virus (fragment)	5e-005	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID I		<u> </u>			]		
					>gi 61758 (V01200) reading frame (gag?) [Spleen necrosis virus]		
3489	U95094	Xenopus laevis	4e-011	3123086	HYPOTHETICAL	2.5	
3469	U93U94	XL-INCENP (XL-INCENP) mRNA, complete cds	46-011	3123080	PROTEIN MJ1050 Methanococcus jannaschii >gi 1499895 (U67548) conserved hypothetical protein	2.3	
					[Methanococcus jannaschii]		
3490	AF035940	Homo sapiens MAGOH mRNA, complete cds	5e-096	3879018	(Z81108) similar to MAGO NASHI PROTEIN; cDNA EST yk415g7.3 comes from this gene; cDNA EST yk425g2.3 comes from this gene; cDNA EST yk425g2.5 comes from this gene; cDNA EST yk415g7.5 comes from this gene; cDNA EST yk415g7.5 comes from this gene; cDNA EST yk376g9.3 c	5e-027	
3491	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5e-013	3201662	(AF042191) paraxial protocadherin; PAPC [Danio rerio]	3.5	

		Nearest Neighbor			Nearest Neighbor			
	(E	BlastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION		P VALUE	ACCESSION		P VALUE		
3492	S80107	membrane- associated diazepam binding inhibitor	e-113	244503	(S80107) membrane- associated diazepam binding inhibitor, MA-DBI [cattle, brain, Peptide, 552 aa] [Bos taurus]	2e-030		
3493	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4.00E-12	<none></none>	<none></none>	<none></none>		
3494	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-015	728834	!!!! ALU SUBFAMILY SB2 WARNING ENTRY	0.29		
3495	U32794	Haemophilus influenzae Rd section 109 of 163 of the complete genome	1.3	2369865	(Y14131) RNA polymerase [grapevine leafroll-associated virus 2]	5.1		
3496	AF030558	Rattus norvegicus phosphatidylinosi tol 5-phosphate 4- kinase gamma mRNA, complete cds	1e-013	<none></none>	<none></none>	<none></none>		
3497	D17577	Mouse mRNA for kinesin-like protein (Kiflb), complete cds	e-121	2497524	KINESIN-LIKE PROTEIN KIF1B mouse >gi 407339 gnl PI D d1005029 (D17577) Kif1b [Mus musculus]	1e-048		
3498		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-005	3881824	(Z73899) ZK829.5 [Caenorhabditis elegans]	1.5		
3499		Homo sapiens (subclone H8 5_a10 from P1 35 H5 C8) DNA sequence.	2e-018		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.2		

		Vearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3500	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.6	
3501	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.6	
3502	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	9e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.5	
3503	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	2661842	(Y15732) DNA polymerase beta [Xenopus laevis]	4e-016	
3504	U65960	Human kinase substrate HASPP28 gene, 5' flanking region and partial cds	le-021	2120084	reverse transcriptase - mouse >gi 558908	9.7	
3505	L19031	Rattus norvegicus organic anion transporter	3e-030		SODIUM- INDEPENDENT ORGANIC ANION TRANSPORTER (ORGANIC ANION TRANSPORTING POLYPEPTIDE) anion - rat >gi 410311 (L19031) oatp [Rattus norvegicus]	2e-025	
3506		Homo sapiens beta-mannosidase mRNA, complete cds	0	3024091	BETA- MANNOSIDASE PRECURSOR beta-mannosidase [Homo sapiens]	2e-085	
3507		H.sapiens MICA gene	1e-055		hypothetical protein (L1H 3' region) - human	le-009	

		Nearest Neighbor			Nearest Neighbor			
SEQ	(B ACCESSION	lastN vs. Genbank)	TS	(BlastX vs. Non-Redundant Proteins)				
ID		DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3508	U50535	Human BRCA2 region, mRNA sequence CG006	4e-012	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	4.2		
3509	AF029984	Lycopersicon esculentum COP1 homolog (COP1) mRNA, complete cds	5e-035	3121867	COPI REGULATORY PROTEIN sativum]	9e-052		
3510	Z59258	H.sapiens CpG DNA, clone 13d2, reverse read cpg13d2.rt1c	2e-046	3219914	HYPOTHETICAL 16.8 KD PROTEIN C30D10.04 IN CHROMOSOME II >gi 2276353 gnl PI D e330328 pombe]	2e-009		
3511	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-008	<none></none>	<none></none>	<none></none>		
3512	AF004161	Oryctolagus cuniculus peroxisomal Ca- dependent solute carrier mRNA, complete cds	9e-030	2352427	(AF004161) peroxisomal Ca- dependent solute carrier	1e-025		
3513	U15643	Drosophila melanogaster ribosomal protein DL11 mRNA, complete cds	0.13	<none></none>	<none></none>	<none></none>		
3514	U15643	Drosophila melanogaster ribosomal protein DL11 mRNA, complete cds	0.13	<none></none>	<none></none>	<none></none>		
3515		H.sapiens mRNA for cathepsin C	e-103		DIPEPTIDYL- PEPTIDASE I PRECURSOR TRANSFERASE) >gi 2146949 pir  S 66504 dipeptidyl- peptidase I (EC 3.4.14.1) precursor - human sapiens]	3e-034		

	1	Nearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3516	U28789	Mus musculus p53-associated cellular protein PACT mRNA, partial cds	e-101	<none></none>	<none></none>	<none></none>	
3517	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-009	127112	MAK16   PROTEIN   >gi 73269 pir  BV   BYK6 MAK16   protein - yeast   (Saccharomyces   cerevisiae)   cerevisiae]   >gi 595561   (U12980)   Mak16p: putative   nuclear protein   [Saccharomyces   cerevisiae]	5e-022	
3518	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-009	<none></none>	<none></none>	<none></none>	
3519	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-010	2650142	(AE001070) A. fulgidus predicted coding region AF0495	0.38	
3520	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-012	2500418	40S RIBOSOMAL PROTEIN S5 >gi 1203905	1.6	
3521	AF004161	Oryctolagus cuniculus peroxisomal Ca- dependent solute carrier mRNA, complete cds	9e-030	2352427	(AF004161) peroxisomal Cadependent solute carrier	1e-025	

	Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3522	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.002	121743	GTPASE-ACTIVATING PROTEIN (GAP) (RAS P21 PROTEIN ACTIVATOR) (P120GAP) (RASGAP) human >gi 182972 (M23379) GTPase-activating protein activating protein [Homo sapiens]	2.8	
3523	Z46372	R.norvegicus RNA for DNA topoisomerase II.	e-131	3876360	(Z68315) Similarity to Human MAP kinase phosphatase-1 (SW:PTN7_HUM AN) [Caenorhabditis elegans]	3e-011	
3524	X85060	B.taurus cosmid- derived microsatellite DNA	1e-051	2072972	(U93572) putative p150 [Homo sapiens]	1e-019	
3525	D86407	Homo sapiens DNA for apoER2, complete cds, and exon 19	0	3322933	(AE001238) DNA ligase (lig) [Treponema pallidum]	7.5	
3526	D17577	Mouse mRNA for kinesin-like protein (Kif1b), complete cds	e-130	2497524	KINESIN-LIKE PROTEIN KIF1B mouse >gi 407339 gnl PI D d1005029 (D17577) Kif1b [Mus musculus]	1e-049	
3527	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-007	2414623	(Z99259) putative phosphotransferas e	4e-009	
3528	U95760	Drosophila melanogaster strawberry notch (sno) mRNA, complete cds	1e-075		(AF002197) F20H11.2 gene product [Caenorhabditis elegans]	8e-057	

	Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3529	X54326	H.sapiens mRNA for glutaminyl- tRNA synthetase	0	135104	MULTIFUNCTIO NAL AMINOACYL- TRNA SYNTHETASE (CONTAINS: GLUTAMYL- TRNA SYNTHETASE glutamyl-prolyl- tRNA synthetase - human >gi 31958	3e-032	
3530	Z73360	Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13.	3e-039	2072955	(U93566) p40 [Homo sapiens]	7.8	
3531	Z73360	Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13.	3e-039	2072955	(U93566) p40 [Homo sapiens]	7.8	
3532	Z73360	Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13.	1e-040	2072955	(U93566) p40 [Homo sapiens]	0.012	
3533	Z73360	Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13.	1e-040	2072955	(U93566) p40 [Homo sapiens]	0.012	
3534	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	3808228	(AF039080) RNA dependent RNA polymerase [Sphaeropsis sapinca RNA virus 2]	1.5	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SÉQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3535	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>	
3536	U95760	Drosophila melanogaster strawberry notch (sno) mRNA, complete cds	3e-060	2078282	(U95760) Sno [Drosophila melanogaster]	1e-042	
3537	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.13	2832777	(AL021086) 1- evidence=predicte d by match; 1- match_accession= AA202870; 1- match_description =LD03215.5prime LD Drosophila melanogaster embryo BlueScript Drosophila melanogaster cDNA clone LD03215 5prime.; 1- match_species=Dr osop	4e-018	
3538	U95760	Drosophila melanogaster strawberry notch (sno) mRNA, complete cds	1e-075	2076895	(AF002197) F20H11.2 gene product [Caenorhabditis elegans]	8e-057	
3539		H.sapiens CpG DNA, clone 187a10, reverse read cpg187a10.rt1a.	9e-061	913042	hepatocyte nuclear factor 3 beta, HNF3 beta	2e-014	
3540		H.sapiens PrP gene, exon 2	e-169		PROTEASE PRTH >gi 440338 (L27483) neutral protease large subunit [Porphyromonas gingivalis]	6.2	
3541		Homo sapiens UDP-glucose dehydrogenase (UGDH) mRNA, complete cds	0		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.4	

	1	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3542	X07290	Human HF.12 gene mRNA	7e-080	1127843	(U41164) Cys2/His2 zinc finger protein [Rattus norvegicus]	1e-034	
3543	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4.00E-12	<none></none>	<none></none>	<none></none>	
3544	U95760	Drosophila melanogaster strawberry notch (sno) mRNA, complete cds	3e-060	2078282	(U95760) Sno [Drosophila melanogaster]	1e-042	
3546	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.002	1255409	(U53153) similar to mouse bullous pemphigoid antigen, BPAG2 (PIR:A46053) [Caenorhabditis elegans]	7.3	
3547	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-008	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	9.9	
3548	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>	
3549	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0002	84605	glycine-rich protein GRP33 - brine shrimp	4.4	
3550	X83212	H.sapiens tryptophan hydroxylase gene, promoter region	5e-013	807677	(M13101) unknown protein [Rattus norvegicus]	0.39	
3551	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.005	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		T	Nearest Neighbor		
	(B	BlastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SÉQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3552	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012	310622	(L20249) homologous to Saccharopolyspora erythraea beta- ketoacyl synthase [Streptomyces coriofaciens]	0.4	
3553	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-007	<none></none>	<none></none>	<none></none>	
3554	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-007	2996640	(AC004500) GDF- 9 [Homo sapiens]	8.2	
3555	Z35928	S.cerevisiae chromosome II reading frame ORF YBR059c	0.043	2384728	(AF015883) hydroxyproline- rich glycoprotein gas28p precursor [Chlamydomonas reinhardtii]	0.23	
3556		M.domesticus (C57Bl/6J) mRNA for zinc finger protein 30	2e-037	543345	zinc finger protein 30 - mouse domesticus]	le-020	
3557		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.002	<none></none>	<none></none>	<none></none>	
3558		Human ribosomal protein L7a (surf 3) large subunit mRNA, complete cds.	1e-054		RIBOSOMAL PROTEIN L7A (PLA-X POLYPEPTIDE) (SURF-3) >gi 71116 pir  R5H U7A ribosomal protein L7a - human >gi 71117 pir  R5R U7A ribosomal protein L7a - rat >gi 34203 (X52138) L7a protein [Homo sapiens] >gi 35512	0.019	

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
					(X06705) PLA-X polypeptide [Homo sapiens]			
3559	U84720	Homo sapiens mRNA export protein (RAE1) mRNA, complete cds	2e-037	<none></none>	<none></none>	<none></none>		
3560	AE001054	Archaeoglobus fulgidus section 53 of 172 of the complete genome	1.2	<none></none>	<none></none>	<none></none>		
3561	U34683	Human glutathione synthetase mRNA, complete cds	3e-052	1346191	GLUTATHIONE SYNTHETASE (GLUTATHIONE SYNTHASE) (GSH SYNTHETASE) (GSH-S) sapiens] >gi 1236350 (U34683) glutathione synthetase	1e-014		
3562		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-015	1825695	(U88180) similar to molybdenum cofactor biosynthesis protein E [Caenorhabditis elegans]	4e-012		
3563		Plasmodium falciparum chromosome 2, section 58 of 73 of the complete sequence	0.005	<none></none>	<none></none>	<none></none>		

3564 3565 3566	(E ACCESSION D10871 M32251	Human h NAT allele 2-2 gene for arylamine N- acetyltransferase Cat LINE-1 DNA sequence region 1. H.sapiens	P VALUE 5e-016 2e-026	(BlastX) ACCESSION 3915580 87765	ZINC FINGER PROTEIN 186 finger protein [Homo sapiens] hypothetical L1 protein (third intron of gene TS) - human >gi 364964 prf  15 10254A L1 repetitive element	Proteins) P VALUE 0.96 2e-011
3564 3565 3566	D10871	Human h NAT allele 2-2 gene for arylamine N- acetyltransferase Cat LINE-1 DNA sequence region 1. H.sapiens	5e-016 2e-026	3915580	ZINC FINGER PROTEIN 186 finger protein [Homo sapiens] hypothetical L1 protein (third intron of gene TS) - human >gi 364964 prf  15 10254A L1 repetitive element	P VALUE
3565	M32251	allele 2-2 gene for arylamine N- acetyltransferase Cat LINE-1 DNA sequence region 1. H.sapiens	2e-026		PROTEIN 186 finger protein [Homo sapiens] hypothetical L1 protein (third intron of gene TS) - human >gi 364964 prf  15 10254A L1 repetitive element	
3566		sequence region 1. H.sapiens		87765	hypothetical L1 protein (third intron of gene TS) - human >gi 364964 prf  15 10254A L1 repetitive element	2e-011
	Y12773				ORF [Homo sapiens]	
3567		TRIDENT/HFH1 1 gene, promoter sequence	3e-008	<none></none>	<none></none>	<none></none>
	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	<none></none>	<none></none>	<none></none>
3568	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-010	<none></none>	<none></none>	<none></none>
3569		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	9e-009	136821	HYPOTHETICAL PROTEIN UL13 precursor - human cytomegalovirus (strain AD169)	6
		Homo sapiens caspase-activated nuclease mRNA, complete cds	e-104	3347857	(AF064019) DNA fragmentation factor 40 kDa subunit [Homo sapiens] >gi 3410909 gnl PI D d1033212 (AB013918) CAD	Ie-024
3571		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012		probable membrane protein YDL211c - yeast	7.5
3572		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete	4e-011	<u> </u>	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	0.39

	1	Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX v	s. Non-Redundant P	roteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
		cds						
3573	U22233	Human methylthioadenos ine phosphorylase (MTAP) mRNA, complete cds.	2e-015	2494053	METHYLTHIOA DENOSINE PHOSPHORYLA SE (MTA PHOSPHORYLA SE) (MTAPASE) phosphorylase (EC 2.4.2.28) - human >gi 847724 (U22233) methylthioadenosi ne phosphorylase [Homo sapiens]	0.02		
3574	X76122	A.majus cyclin-1 mRNA.	3.2	2135633	MHC cell surface glycoprotein - human sapiens]	9		
3575	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-009	699508	(U20542) lethal(1)1Bi protein [Drosophila melanogaster]	0.64		
3576	D13391	Human CYP19 gene for aromatase cytochrome P- 450, promoter region (containing two cis-acting transcriptional regulatory elements)	2e-018	<none></none>	<none></none>	<none></none>		
3577	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	532806	(U13875) C26E6.5 gene product [Caenorhabditis elegans]	5e-045		
3578		H.sapiens TRE5 and TRE18 sequence of the tre oncogene	4e-033	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	9e-006		
3579	AC004497	Homo sapiens chromosome 21, P1 clone	0.0005	<none></none>	<none></none>	<none></none>		

		Nearest Neighbor (BlastN vs. Genbank)		Nearest Neighbor				
SEQ	ACCESSION				vs. Non-Redundant			
ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
		LBNL#6						
3580	AB003095	Fruitfly strain SI259 mitochondrial DNA, A+T-rich region, partial sequence	0.12	<none></none>	<none></none>	<none></none>		
3581	Z36019	S.cerevisiae chromosome II reading frame ORF YBR150c	3.2	4107113	(AB007462) Pax- 2/5/8 [Ephydatia fluviatilis]	5.3		
3582	Z56421	H.sapiens CpG DNA, clone 117c7, reverse read cpg117c7.rt1a.	1e-033	3876101	(Z75536) similar to DnaJ domain; cDNA EST yk398h12.5 comes from this gene; cDNA EST yk250d6.5 comes from this gene [Caenorhabditis elegans]	1e-040		
3583	U36499	Human lymphoid-specific SP100 homolog (LYSP100-A) mRNA, complete cds	5e-015	1362890	phosphoprotein 75 - human >gi 402148	le-008		
3584	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	5e-005	<none></none>	<none></none>	<none></none>		
3585	Ú95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.002	1045228	(X92429) Synthetase [Streptomyces anulatus]	0.84		
3586		Human mRNA for KIAA0208 gene, complete cds	0.04	<none></none>	<none></none>	<none></none>		
3587		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-012	<none></none>	<none></none>	<none></none>		

	1	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3588	AB012113	Homo sapiens gene for CC chemokine PARC precursor, complete cds	0.0002	1723187	PROTEIN IN PYK1-SNC1 INTERGENIC REGION >gi 2131258 pir  S 70292 FUN12 protein Fun12p: 97kDa protein, function unknown [Saccharomyces cerevisiae]	4.2		
3589	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-007	<none></none>	<none></none>	<none></none>		
3590	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.002	<none></none>	<none></none>	<none></none>		
3591	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	6e-005	<none></none>	<none></none>	<none></none>		
3592	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.8		
3593	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-006	<none></none>	<none></none>	<none></none>		
3594		Oryza sativa 16.9 kDa heat shock protein gene, complete cds.	1.5	<none></none>	<none></none>	<none></none>		
3595		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-014	<none></none>	<none></none>	<none></none>		

		Nearest Neighbor			NI (NI 1 1 1	
	(E	BlastN vs. Genbank)		(BlastX)	Nearest Neighbor vs. Non-Redundant l	Dratains)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3596		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-012	<none></none>	<none></none>	<none></none>
3597	X67813	C.familiaris SRP72 mRNA for signal recognition particle	4e-083	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	6.2
3598	AB007930	Homo sapiens mRNA for KIAA0461 perotein, partial cds	3e-038	3413884	(AB007930) KIAA0461 perotein [Homo sapiens]	3e-016
3599	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	8e-007	3093586	(AF018165) amyloid precursor protein [Tetraodon fluviatilis]	2.7
3600	Z35102	H.sapiens mRNA for Ndr protein kinase > :: emb A52140 A52 140 Sequence 6 from Patent WO9619579	e-126	2135799	Ndr protein kinase - human >gi 854170	9e-086
3601	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>
3602	X51544	Synthetic hamster-human hybrid cell (HCH-1) HSAG- 2 gene Alu repeat region.	0.13	1706266	SULFATE ADENYLATE TRANSFERASE SUBUNIT 2 (ATP- SULFURYLASE) >gi 1322409 gnl PI D e243270	5.8
3603		H.sapiens DNA for exon trapped sequence	3e-051		(AL034393) Y18D10A.15 [Caenorhabditis elegans]	6e-005
3604		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	7e-005	<none></none>	<none></none>	<none></none>

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3605	M57465	N.crassa phytoene dehydrogenase (al-1) gene, complete cds.	0.29	<none></none>	<none></none>	<none></none>	
3606	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
3607	S71335	Aox l=alternative oxidase {alternative pathway} suspension cells, mRNA, 1408 nt]	1.1	<none></none>	<none></none>	<none></none>	
3608	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.005	2621440	(AE000823) O- antigen transporter related protein	5.7	
3609	U36199	Caenorhabditis elegans CeMef-2 (mef-2) gene, complete cds.	1.1	259519	(S48091) NSM [tomato spotted wilt virus TSWV, Peptide, 302 aa] [Tomato spotted wilt virus]	4.1	
3610	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.35	3399767	(U76298) uclacyanin I [Arabidopsis thaliana] >gi 3831466	0.35	
3611	AF000590	Homo sapiens chromosome 21q11-q21 genomic clone SA-292	7e-026	<none></none>	<none></none>	<none></none>	
3612	U64195	HIV-1 isolate ZP36 from Australia, reverse transcriptase (pol) gene, partial cds.	1.2	<none></none>	<none></none>	<none></none>	
3613	AB015331	Homo sapiens HRIHFB2017 mRNA, partial cds	1e-094	3970852	(AB015331) HRIHFB2017 [Homo sapiens]	0.0001	
3614	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		Ţ	Nearest Neighbor	<del></del>
650		BlastN vs. Genbank)	_	(BlastX	vs. Non-Redundant I	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3615	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-009	1743885	(U79716) Human Reelin [Homo sapiens]	9.5
3616	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-006	<none></none>	<none></none>	<none></none>
3617	<none></none>	<none></none>	<none></none>	2338034	(AF005370) putative immediate early protein [Alcelaphine herpesvirus 1]	2e-008
3618	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.006	2707286	(AF036316) cyclin [Prorocentrum minimum]	1.2
3619	X79810	R.norvegicus CYP2C13 gene	0.049	2916892	(AL022004) PE_PGRS [Mycobacterium tuberculosis]	1
3620	AJ224516	Gallus gallus IL-2 gene	1.4	<none></none>	<none></none>	<none></none>
3621	Z79044	H.sapiens flow- sorted chromosome 6 HindIII fragment, SC6pA21C9	0.42	<none></none>	<none></none>	<none></none>
3622	U39357	Ovis aries beta actin mRNA, complete cds	2e-024		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	1.3
3623		Ovis aries beta actin mRNA, complete cds	1e-043	940346	(U20963) ORF1; late mRNA [Suid herpesvirus 1]	5.6
3624		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	3e-008	2702361	(AF036706) No definition line found [Caenorhabditis elegans]	0.22
3625		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.041	244874	Glvr-1 product [mice, Peptide, 581 aa]	1.9

	)	Nearest Neighbor			Nearest Neighbor	Nearest Neighbor			
		lastN vs. Genbank)	1		s. Non-Redundant P	roteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE			
3626	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.002	. <none></none>	<none></none>	<none></none>			
3627	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.002	1730141	FRAGILE X MENTAL RETARDATION SYNDROME RELATED PROTEIN 2 >gi 2135129 pir  S 60173 fragile X mental retardation syndrome related protein - human >gi 1098637 (U31501) fragile X mental retardation syndrome related protein [Homo sapiens]	9.4			
3628	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-008	<none></none>	<none></none>	<none></none>			
3629	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-006	<none></none>	<none></none>	<none></none>			
3630		Rat mRNA for TIP120, complete cds	0		(D87671) TIP120 [Rattus norvegicus]	e-112			
3631		Rat mRNA for TIP120, complete cds	. 0		(D87671) TIP120 [Rattus norvegicus]	e-110			
3632	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>			

		Nearest Neighbor		T	Nearest Neighbor	<del></del>
		BlastN vs. Genbank		(BlastX	vs. Non-Redundant F	Proteins)
SEQ ID		DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3633	D88349	Chicken mRNA for tyrosinase, complete cds	0.12	2144081	luteinizing hormone/chorionic gonadotropin receptor - rat >gi 252167 bbs 10 9910 (S40803) luteinizing hormone/chorionic gonadotropin receptor, LH/CG receptor {alternatively spliced, clone rLHR1834}	
3634	X17206	Human mRNA for LLRep3	3e-025	2920827	(U92697) ribosomal protein S2 [Rattus norvegicus]	0.0003
3635	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.3
3636	X69878	H.sapiens Flt4 mRNA for transmembrane tyrosine kinase	2e-088	<none></none>	<none></none>	<none></none>
3637	X69878	H.sapiens Flt4 mRNA for transmembrane tyrosine kinase	2e-088	<none></none>	<none></none>	<none></none>
3638	X15509	Human gene for thymidine kinase, 5' region (EC 2.7.1.21)	4e-011	<none></none>	<none></none>	<none></none>
3639	U89744	Rattus norvegicus putative cell surface antigen mRNA, complete cds	0.39	1085432	mucin (clone PGM-2A) - pig	0.0006
3640		Human (clone D13-2) L-iditol-2 dehydrogenase gene, exon 4, exon 5, exon 6 and exon 7.	3e-006		NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - Sauroleishmania tarentolae mitochondrion	2.4

	1	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant Pr	roteins)	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3641	Z35286	H.sapiens MDR3 gene, exon1, exon2	0.016	<none></none>	<none></none>	<none></none>	
3642	M11373	Simian T-cell leukemia virus, pol-env-pX-3' LTR region.	0.39	2773324	(AF040381) carbonic anhydrase [Erwinia carotovora]	5.9	
3643	M11373	Simian T-cell leukemia virus, pol-env-pX-3' LTR region.	0.39	2773324	(AF040381) carbonic anhydrase [Erwinia carotovora]	5.9	
3644	Z11763	O.granulifera gene for alpha- tubulin	0.39	2138321	(U89012) dentin matrix acidic phosphoprotein 1 [Homo sapiens]	2.6	
3645	<none></none>	<none></none>	<none></none>	1352944	HYPOTHETICAL 118.4 KD PROTEIN IN BAT2-DAL5 INTERGENIC REGION PRECURSOR YJR151c - yeast (Saccharomyces cerevisiae) >gi 1015903	3.9	
3646	U18351	Drosophila melanogaster insulin receptor gene, complete cds	0.005	1468983	(U64830) protein tyrosine kinase [Dictyostelium discoideum]	4e-012	
3647	M28458	Human growth hormone receptor gene, exon 2.	1.2	2648877	(AE000987) A. fulgidus predicted coding region AF1681	8.1	

(BlastN vs. Genbank) (BlastX vs. Non-Redundant Proteins)  SEQ ACCESSION DESCRIPTION P VALUE ACCESSION DESCRIPTION P VALUE  3648 AFO(0120 MW/s)			Nearest Neighbor		Nearest Neighbor			
D	050	(E					Proteins)	
DH12 clone 5   from the USA, vpr protein (vpr)   gene, partial cds, tat protein (tat)   and rev protein (rev) genes, complete eds; vpu   pseudogene, complete eds; vpu   pseudogene, complete eds; vpu   pseudogene, complete eds; vpoint (env) and nef protein (n)   1070602   collagen alpha   1(II) chain   protein (n)   1070602   collagen alpha   1(II) chain   protein (n)   1070602   collagen alpha   1(II) chain   precursor - human   1(III) chain   1(	ID			PVALUE	ACCESSION	DESCRIPTION	P VALUE	
1070002   1070	3648	AF069139	DH12 clone 5 from the USA, vpr protein (vpr) gene, partial cds; tat protein (tat) and rev protein (rev) genes, complete cds; vpu pseudogene, complete sequence; envelope glycoprotein (env) and nef	0.13	<none></none>	<none></none>	<none></none>	
P2X7 gene, exon 1 and joined CDS			Rattus norvegicus tyrosine phosphatase mRNA, complete cds.		1070602	1(II) chain	0.55	
Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 28 of 51   Section 29			P2X7 gene, exon	0.005	<none></none>	<none></none>	<none></none>	
3652   Z80361   H.sapiens HLA-DRB pseudogene, repeat region;   2e-048   <none>   <none>   <none>   3653   U12171   Oryza sativa IR54 anther specific (RTS2) gene, complete cds.   3654   AG001163   Homo sapiens genomic DNA, 21q region, clone: Q94A10X26   Human tRNA-Tyr-pseudogene   4.6   <none>   <n< td=""><td></td><td></td><td>genitalium section 28 of 51 of the complete genome</td><td>0.39</td><td>465542</td><td>20.0 KD PROTEIN IN TRNP 5'REGION (ORF160) &gt;gi 625956 pir  S3 8599 hypothetical protein 160 (rpl20 5' region) - euglenid (Astasia</td><td>2</td></n<></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none></none>			genitalium section 28 of 51 of the complete genome	0.39	465542	20.0 KD PROTEIN IN TRNP 5'REGION (ORF160) >gi 625956 pir  S3 8599 hypothetical protein 160 (rpl20 5' region) - euglenid (Astasia	2	
anther specific (RTS2) gene, complete cds.  3654 AG001163 Homo sapiens genomic DNA, 21q region, clone: Q94A10X26 Human tRNA-Tyr-pseudogene  3655 X04780 Human tRNA-Tyr-pseudogene			DRB pseudogene, repeat region;	2e-048	<none></none>		<none></none>	
genomic DNA, 21q region, clone: Q94A10X26  SUBFAMILY J WARNING ENTRY  3655  X04780  Human tRNA- Tyr-pseudogene  3650  3650  3650  WARNING ENTRY  NONE>  NONE>			anther specific (RTS2) gene, complete cds.	3.5	<none></none>	<none></none>	<none></none>	
Tyr-pseudogene <pre></pre>			genomic DNA, 21q region, clone: Q94A10X26	5e-014		SUBFAMILY J WARNING	0.004	
	3655		Tyr-pseudogene	4.6			<none></none>	

		Nearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3656	AF086264	Homo sapiens full length insert cDNA clone ZD43A10	0.002	<none></none>	<none></none>	<none></none>	
3657	AB011118	Homo sapiens mRNA for KIAA0546 protein, partial cds	0.002	1588661	tryptase [Bos taurus]	1.3	
3658	Z46379	Homo sapiens mRNA for anti- Sm antibody VH chain	0.13	<none></none>	<none></none>	<none></none>	
3659	Y12930	H.rustica CHD-W gene, intron	0.39	3861232	(AJ235272) PROBABLE TRANSPORT ATP-BINDING PROTEIN MSBA (msbA2) [Rickettsia prowazekii]	1.2	
3660	AF093267	Rattus norvegicus homer-1b mRNA, complete cds	0.005	<none></none>	<none></none>	<none></none>	
3661	M34057	Human transforming growth factor- beta 1 binding protein mRNA, complete cds.	0.043	<none></none>	<none></none>	<none></none>	
3662	X75418	H.sapiens TCR V Beta 13.2 gene (allele a).	0.4	<none></none>	<none></none>	<none></none>	
3663	Z68758	Human DNA sequence from cosmid cN85E10 on chromosome 22q11.2-qter	2e-025	3399771	(AF041839) Smad6 [Xenopus laevis]	0.39	
3664	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-005		(U95760) Sno [Drosophila melanogaster]	0.0006	
3665		S.cerevisiae chromosome XV reading frame ORF YOR124c	0.14	<none></none>	<none></none>	<none></none>	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE		DESCRIPTION	P VALUE	
3666	U28831	Human protein immuno-reactive with anti-PTH polyclonal antibodies mRNA, partial cds. > :: gb I40055 I40055 Sequence 1 from patent US 5618695	0	896065	(U28831) protein that is immuno- reactive with anti- PTH polyclonal antibodies [Homo sapiens]	e-100	
3667	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.04	<none></none>	<none></none>	<none></none>	
3668 3669	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
3009	Z96359	H.sapiens telomeric DNA sequence, clone 17QTEL013, read 17QTELOO013.s eq	7e-006	2921609	(AF039037) 980219 -this used to be part of R02C2.4 but was split into two genes based on protein similarities	7.7	
3670	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	8e-008	3342730	(AC005331) R31341_1 [Homo sapiens]	2e-019	
3671		Ictalurus punctatus heat shock protein 70 (CF Hsp70) mRNA, complete cds.	1.2	2143951	Ras-related protein - rat >gi 498257	5e-009	
3672		R.norvegicus mRNA for Kir3.1 protein	0.005		TYPE IIS RESTRICTION ENZYME ECO57I METHYLTRANS FERASE ACTIVITY >gi 281976 pir  S2 6426 type II site- specific deoxyribonuclease (EC 3.1.21.4) Eco57I endonuclease	9.9	

		Nearest Neighbor		Nearest Neighbor				
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
					[Escherichia coli]			
3673	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-008	3006154	(AL022299) putative cytochrome c1, heme protein precursor [Schizosaccharom yces pombe]	4.5		
3674	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-006	3915503	HYPOTHETICAL OXIDOREDUCT ASE IN CHEV- MOBA INTERGENIC REGION >gi 2632227 gnl PI D e1181911 1- dehydrogenase [Bacillus subtilis]	2e-021		
3675	U71363	Human zinc finger protein zfp6 (ZF6) mRNA, partial cds	3e-070	2689441	(AC003682) F18547_1 [Homo sapiens]	4e-029		
3676	AF042275	Oryza sativa anther-specific protein gene, complete cds	0.39	<none></none>	<none></none>	<none></none>		
3677		P.berghei telomeric repeat region subfragment alpha DNA.	0.13	<none></none>	<none></none>	<none></none>		
3678		Human zinc finger protein ZNF140	6e-047	3445181	(AC005498) R31665_2 [Homo sapiens]	4e-027		
3679		Rat t complex polypeptide 1 (Tcp-1) mRNA	0.13	<none></none>	<none></none>	<none></none>		

		Nearest Neighbor	·		Nearest Neighbor	
	(E	BlastN vs. Genbank	)	(BlastX	vs. Non-Redundant F	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE
3680	AE000758	Aquifex aeolicus section 90 of 109 of the complete genome	0.38	134134	RYANODINE RECEPTOR, SKELETAL MUSCLE muscle - rabbit >gi 1710 (X15750) ryanodine receptor (AA 1-5037) [Oryctolagus cuniculus] >gi 1714 (X15209) ryanodine receptor [Oryctolagus cuniculus]	
3681	X60280	Vector plasmid pLTRpoly DNA	3e-040	2981631	(AB012223) ORF2 [Canis familiaris]	0.87
3682	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.8
3683	L81683	Homo sapiens (subclone 1_d11 from P1 H54) DNA sequence	3e-019	113668	!!!! ALU CLASS C WARNING ENTRY !!!!	2
3684	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	le-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	9.7
3685		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	6.8
3686		H.sapiens mRNA for TRE17 5' extremity and unnamed adjacent to TRE17, locus tre-1.	3e-010	728836	!!!! ALU SUBFAMILY SP WARNING ENTRY	4.4
3687	1	Gallus gallus clone Ocya1 unknown mRNA	le-011		(AF093204) unknown [Gallus gallus]	0.097
3688		Homo sapiens (subclone H8 8_f5 from P1 35 H5 C8) DNA	3e-031	2072966	(U93570) p40 [Homo sapiens]	8e-006

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
		sequence.					
3689	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
3690	L10111	Octopus dofleini beta-tubulin mRNA, complete cds.	0.14	<none></none>	<none></none>	<none></none>	
3691	S83333	CYP27=sterol 27- hydroxylase/cere brotendinous xanthomatosis candidate gene {3' region, intron 6 to intron 8} [human, Genomic, 1725 nt, segment 4 of 4]	3.5	<none></none>	<none></none>	<none></none>	
3692	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.9	
3693	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-009	220578	(D00570) open reading frame (251 AA)	1.1	
3694	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-010	416563	INTESTINAL MEMBRANE A4 PROTEIN A4 differentiation- dependent protein [Homo sapiens]	0.021	
3695	AB018374	Mus musculus GARP34 mRNA, complete cds	4e-074	3724364	(AB018374) GARP34 [Mus musculus]	2e-017	
3696	AB018374	Mus musculus GARP34 mRNA, complete cds	4e-074	3724364	(AB018374) GARP34 [Mus musculus]	2e-017	
3697		Oryctolagus cuniculus mRNA for mitsugumin 23, complete cds	4e-038	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		<u> </u>	Nearest Neighbor	
	(E	BlastN vs. Genbank	)	(BlastX	vs. Non-Redundant I	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	PVALUE	ACCESSION		P VALUE
3698	U33147	Human mammaglobin mRNA, complete cds > :: gb I65735 I65735 Sequence 1 from patent US 5668267	1	1946371	(U93215) regulatory protein Viviparous-1 isolog	2.5
3699	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.0006	2132981	probable membrane protein YPL105c - yeast	5.1
3700	U08802	HIV-1 sample 026 clone 06 from Thailand partial cds.	0.47	3880139	(Z68121) Similarity to Yeast nitrogen regulatory protein GLN3 (PIR Acc. No. S22280)	7.3
3701	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-011	<none></none>	<none></none>	<none></none>
3702	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.002	<none></none>	<none></none>	<none></none>
3703	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-011	<none></none>	<none></none>	<none></none>
3704	Z56740	H.sapiens CpG DNA, clone 13b5, reverse read cpg13b5.rt1c	4e-043	2465332	(U92819) unnamed HERV- H protein [Homo sapiens]	0.007
3705		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-008	<none></none>	<none></none>	<none></none>
3706		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009		(U56248) Similar to polyketide synthase. [Caenorhabditis briggsae]	2.9

		Nearest Neighbor		Nearest Neighbor			
		(BlastN vs. Genbank)			s. Non-Redundant P		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3707	AF023283	Chikungunya virus S27 3'UTR	0.39	3560261	(AL031535) RNA binding protein	4.5	
3708	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>	
3709	AF030944	Brugia malayi microfilarial sheath protein SHP3a	0.12	<none></none>	<none></none>	<none></none>	
3710	AE000700	Aquifex aeolicus section 32 of 109 of the complete genome	0.15	<none></none>	<none></none>	<none></none>	
3711	AJ001050	Homo sapiens mRNA for thioredoxin reductase	4e-042	1843434	(D88687) KM- 102-derived reductase-like factor [Homo sapiens]	3e-038	
3712	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.002	625090	(U19464) outer arm dynein beta heavy chain [Paramecium tetraurelia] >gi 1588498 prf  2 208428A dynein:SUBUNIT =heavy chain [Paramecium tetraurelia]	2.7	
3713	AG001414	Homo sapiens genomic DNA, 21q region, clone: 9H11X4	0.46	<none></none>	<none></none>	<none></none>	
3714	AB007930	Homo sapiens mRNA for KIAA0461 perotein, partial cds	0	3413884	(AB007930) KIAA0461 perotein [Homo sapiens]	2e-068	
3715		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-007	<none></none>	<none></none>	<none></none>	
3716	Y09999	H.sapiens CHOP gene, intron 1	2e-007	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor			Nearest Neighbor	
SEQ	ACCEPPIO:	BlastN vs. Genbank		(BlastX	vs. Non-Redundant P	roteins)
ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3717	AF023461	Homo sapiens FRA3B region sequence	0.13	2501500	ECDYSTEROID UDP- GLUCOSYLTRA NSFERASE PRECURSOR >gi 1563727 gnl PI D e267373 (Y08294) ecdysteroid UDP- glucosyltransferas e [Lacanobia oleracea granulovirus]	5.6
3718	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	2330794	(Z98601) hypothetical protein	0.004
3719	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-007	1363246	TIF1 protein - mouse >gi 998815 bbs 16 7126	5e-007
3720	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-006	1314732	(U54640) 185 kDa silk protein [Chironomus pallidivittatus]	0.17
3721	U09933	Human urokinase-type plasminogen receptor, exon 3	5e-025	3523099	(AF016271) Ksp- cadherin [Mus musculus]	7.6
3722	M30187	S.cerevisiae mitochondrion Tyr-tRNA gene.	0.13	218437	(D90352) myo- inositol transporter	7.3
3723	X79703	O.aries gene for beta-casein	0.043	141103	HYPOTHETICAL PROTEIN ORF- 1137 mouse	4.5
3724		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	9e-009	}	hypothetical protein YOL072w - yeast	9.9
3725		Homo sapiens inosine monophosphate dehydrogenase type II gene, complete cds	2e-078		(AB002383) KIAA0385 [Homo sapiens]	2e-018

	1	Nearest Neighbor	· · · · · · · · · · · · · · · · · · ·	Nearest Neighbor		
		lastN vs. Genbank)			s. Non-Redundant P	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3726	U52832	Homo sapiens Cri-du-chat region mRNA, clone CSC3	2e-005	<none></none>	<none></none>	<none></none>
3727	AF015043	Homo sapiens EH-binding protein mRNA, partial cds	e-169	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.4
3728	D28485	Human MSMB gene for beta- microseminoprote in (MSP), promoter region and exon1	4e-011	<none></none>	<none></none>	<none></none>
3729	M33027	Human vasoactive intestinal peptide/PHM-27 gene, exons 1-6.	0.043	<none></none>	<none></none>	<none></none>
3730	X15377	Human gene for the light and heavy chains of myeloperoxidase	2e-024	1346141	GLYCEROL KINASE (ATP:GLYCERO L 3- PHOSPHOTRAN SFERASE) (GLYCEROKINA SE) (GK) Mycoplasma genitalium (SGC3) >gi 3844648 (U39683) glycerol kinase (glpK) [Mycoplasma genitalium]	3e-011
3731	X57103	Human h-lys gene for lysozyme (upstream region)	0.0005	<none></none>	<none></none>	<none></none>
3732		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	3319482	(AF077546) No definition line found [Caenorhabditis elegans]	9.8
3733		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.5

		Nearest Neighbor		γ	Nogroot Noighbar	
	(E	BlastN vs. Genbank)	)	(BlastX)	Nearest Neighbor vs. Non-Redundant I	Proteins)
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
1D 3734	1102057					
3/34	U83857	Human Aacl l	2e-027	2623755	(U35846)	3e-005
ļ		(aac11) mRNA, complete cds			unknown [Mus	
3735	U95102	Xenopus laevis	le-013	2072296	musculus]	
		mitotic	16-013	2072296	(U95098) mitotic phosphoprotein 44	2.5
		phosphoprotein			[Xenopus laevis]	
		90 mRNA,	ĺ		[ carrepus me visj	
2726	1100365	complete cds				
3736	U09367	Human zinc	1e-065	1731412	ZINC FINGER	7e-060
		finger protein ZNF136			PROTEIN 136	
		2.11 130			human >gi 487785 (U09367) zinc	
					finger protein	
200					ZNF136	
3737	U95102	Xenopus laevis	6e-006	2507475	PAIRED	5.8
		mitotic phosphoprotein			AMPHIPATHIC	
		90 mRNA,			HELIX PROTEIN	
		complete cds				
3738	U95102	Xenopus laevis	0.002	3702452	(X80031) type IV	1.5
		mitotic			collagen alpha 3	
		phosphoprotein 90 mRNA,			chain	
		complete cds		•		
3739	AF086022	Homo sapiens	3.5	<none></none>	<none></none>	<none></none>
		full length insert		1,01,2	TIONE	NOINE
		cDNA clone				
3740	U95102	YW23E02	0.000			
3,40	093102	Xenopus laevis mitotic	0.0002	2960225	(AL022120) PPE	7.4
		phosphoprotein			[Mycobacterium tuberculosis]	
		90 mRNA,	İ		tubereurosisj	
		complete cds				
3741		Xenopus laevis	2e-006	<none></none>	<none></none>	<none></none>
		mitotic phosphoprotein				
		90 mRNA,			j	
		complete cds				
3742	AJ005866	Homo sapiens	e-177	4008517	(AJ005866) Sqv-	9e-045
	1	mRNA for	1		7-like protein	75 043
		putative Sqv-7-			[Homo sapiens]	
		like protein, partial	ļ			
	<u></u> 1	pur tiul				

	N	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3743	AF043231	Emericella nidulans cAMP- dependent protein kinase regulatory subunit (pkaR) gene, complete cds	1.1	<none></none>	<none></none>	<none></none>		
3744	AB002319	Human mRNA for KIAA0321 gene, partial cds	5e-066	2224583	(AB002319) KIAA0321 [Homo sapiens]	2e-024		
3745	M33132	Human proliferating cell nucleolar protein P120 gene, exons 1-15.	8e-018	113668	!!!! ALU CLASS C WARNING ENTRY !!!!	0.077		
3746	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-009	2394463	(AF024498) No definition line found [Caenorhabditis elegans]	1.2		
3747	Z69944	S.pombe chromosome I cosmid c1F12.	4.4	<none></none>	<none></none>	<none></none>		
3748	Z81014	Human DNA sequence from cosmid U65A4, between markers DXS366 and DXS87 on chromosome X *	4e-022	896065	(U28831) protein that is immuno- reactive with anti- PTH polyclonal antibodies [Homo sapiens]	0.075		
3749	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	3877203	(Z70780) similar to initiation factor IF-2; cDNA EST CEMSD25F comes from this gene	4.4		
3750	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-007	<none></none>	<none></none>	<none></none>		
3751	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-008	2065210	(Y12713) Pro-Pol- dUTPase polyprotein	2		

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant F	Proteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3752	M36072	Human ribosomal	le-054	133014	60S	1 0 010		
10.02	11150072	protein L7a (surf	16-034	133014	RIBOSOMAL	0.019		
		3) large subunit		l	PROTEIN L7A	· ·		
		mRNA, complete			(PLA-X			
		cds.			POLYPEPTIDE)			
					(SURF-3)			
					>gi 71116 pir  R5H			
					U7A ribosomal			
					protein L7a -			
		•			human			
					>gi 71117 pir  R5R  T7A ribosomal			
					protein L7a - rat			
					>gi 34203			
					(X52138) L7a			
					protein [Homo			
					sapiens] >gi 35512			
					(X06705) PLA-X			
		·			polypeptide			
3753	AB001615	Homo sapiens	6e-006	<none></none>	[Homo sapiens] <none></none>	<none></none>		
		DNA for cGMP-	00 000	410112	MONE	NONE		
1 1		binding cGMP-						
		specific						
		phosphodiesteras						
3754	X57103	e (PDE5), exon 1	5 015	110.00				
3734	X3/103	Human h-lys gene for	5e-015	113670	!!!! ALU CLASS E WARNING	3.3		
		lysozyme	}		ENTRY !!!!			
		(upstream region)			LIVIRI :::			
3755	L09708	Homo sapiens	6e-005	1143705	(X89760) Hox2a	9.7		
		complement		İ	gene product [Zea			
		component 2 (C2)	İ		mays]			
	İ	gene allele b, exons 10 through						
		18 and complete	1					
] ]		cds	ŀ					
3756	i	C.aethiops hsp70	2e-088	1322309	(U55176) heat	2e-025		
		mRNA		1	shock cognate	20 023		
	Ì				70.II [Xenopus	ŀ		
3757	757504	II and a C C	0.000		laevis]			
10/0	,	H.sapiens CpG DNA, clone	0.002	<none></none>	<none></none>	<none></none>		
	1	186c5, reverse	j	]				
		read		1				
		cpg186c5.rtlb.	1			ļ		
·L	L		L					

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3758	AF095927	Rattus norvegicus protein phosphatase 2C mRNA, complete cds		3777604	(AF095927) protein phosphatase 2C [Rattus norvegicus]	4e-040		
3759	U30788	Rattus norvegicus Tclone4 mRNA	5e-024	135576	LARGE TEGUMENT PROTEIN (VIRION PROTEIN UL36) >gi 73851 pir  WM BEH6 UL36 protein - human herpesvirus 1 (strain 17) >gi 59536 gnl PID  e312351 1]	1.6		
3760	Z96177	H.sapiens telomeric DNA sequence, clone 10QTEL040, read 10QTELOO040.s eq	3e-009	1082626	myosin heavy chain VA - human (fragment)	5.8		
3761	M37463	E.gracilis chloroplast ribosomal protein genes rpl23, rpl2, rps19, rpl22, and rps3, complete cds.	0.38	2734883	(U75311) pyruvate decarboxylase 2 [Pichia stipitis]	3.4		
3762	AF086241	Homo sapiens full length insert cDNA clone ZD29F04	4e-064	3702137	(AL031393) dJ733D15.1 (Zinc- finger protein) [Homo sapiens]	le-040		
3763		Homo sapiens full length insert cDNA clone ZD29F04	4e-064	3702137	(AL031393) dJ733D15.1 (Zinc- finger protein) [Homo sapiens]	1e-040		
3764		Drosophila melanogaster odd Oz product (odz) gene, exons 3, 4, 5, 6, 7, and complete cds	3.6	2661842	(Y15732) DNA polymerase beta [Xenopus laevis]	2e-020		
3765		Homo sapiens antigen NY-CO-3 (NY-CO-3) mRNA, partial cds	0		(AF039688) antigen NY-CO-3 [Homo sapiens]	2e-073		

	ì	Vearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
3766	AF037332	Homo sapiens Eph-like receptor tyrosine kinase hEphB1b (EphB1) mRNA, complete cds	0.37	1255919	(X96511) MAFB protein [Coturnix japonica]	5.6	
3767	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-006	<none></none>	<none></none>	<none></none>	
3768	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.005	<none></none>	<none></none>	<none></none>	
3769	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-010	<none></none>	<none></none>	<none></none>	
3770	X57103	Human h-lys gene for lysozyme (upstream region)	5e-015	113670	!!!! ALU CLASS E WARNING ENTRY !!!!	3.3	
3771	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	2947096	(U81032) TniQ [Pseudomonas stutzeri]	0.86	
3772		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002		(U81032) TniQ [Pseudomonas stutzeri]	0.86	
3773		Human ADP- ribosylation factor 1 mRNA, complete cds	0		collagen alpha 2(I) chain homolog - sea urchin (Strongylocentrotu s purpuratus) >gi 161436 purpuratus]	0.14	
3774		G.gallus mRNA for Cnot	0.39	3327136	(AB014561) KIAA0661 protein [Homo sapiens]	3e-033	

*************		Nearest Neighbor	<del></del>	Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID		DEGERIT TION	1 VILEGE			VIII OF	
3775	L43001	Bos taurus	3e-072	1730238	GUANYLATE	le-030	
		guanylyl cyclase-			CYCLASE		
		activating protein			ACTIVATING		
		2			PROTEIN 2		
					(GCAP 2)		
					(RETINAL		
					GUANYLYL	ĺ	
i	•				CYCLASE		
					ACTIVATOR		
					PROTEIN P24)		
1					>gi 2136762 pir  A		
					57604 guanylate		
					cyclase-activating		
					protein 2 - bovine		
					>gi 1002750		
1 1					cyclase-activating		
					protein 2 [Bos taurus]		
3776	U47322	Cloning vector	7e-007	3335349	(AC004512)	9.2	
3770	047322	DNA, complete	76-007	3333379	Similar to	7.2	
		sequence.			gb U46691		
		sequence.			putative chromatin		
					structure regulator		
					(SUPT6H) from		
					Homo sapiens.		
					ESTs gb T42908,		
					gb AA586170 and		
					gb AA395125		
					come from this		
	İ				gene. [Arabidopsis		
					thaliana]		
3777	L09647	Rattus norvegicus	2e-069	404764	(L10409) fork	3e-031	
	ļ	hepatocyte			head related		
		nuclear factor 3a			protein [Mus		
277	110000			210215	musculus]	21055	
3778		Lycianthes	0.37	<none></none>	<none></none>	<none></none>	
		heteroclita	į				
		NADH	ŀ		İ		
		dehydrogenase					
		subunit protein,					
		partial cds	<u></u>				

		Nearest Neighbor			Nearest Neighbor	
	(B	lastN vs. Genbank)	1	(BlastX v	s. Non-Redundant F	roteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3779	M94314	Homo sapiens ribosomal protein L30 mRNA, complete cds		3876073	(Z81505) similar to Zinc finger, C3HC4 type (RING finger); cDNA EST EMBL:D28025 comes from this gene; cDNA EST EMBL:D28024 comes from this gene; cDNA EST EMBL:D33210 comes from this gene; cDNA EST EMBL:D33441 comes from this	1.4
3780	AF053315	Reporter vector pNFkB-Luc, complete sequence	9e-019	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.3
3781	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	4.5
3782	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-013	1695957	(U78693) NADH dehydrogenase [Holmskioldia sanguinea]	1.9
3783		Homo sapiens full length insert cDNA YH85A11	0.005	1881709	(U89517) polyprotein [Dengue virus type 2]	9.6
3784		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-009	<none></none>	<none></none>	<none></none>
3785		Homo sapiens NADP-dependent isocitrate dehydrogenase (IDH) mRNA, complete cds	4e-011		(Z97348) MAL3P1.11 [Plasmodium falciparum]	9.6

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		`	s. Non-Redundant P			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3786	Z75199	S.cerevisiae chromosome XV reading frame ORF YOR291w	8e-028	3880560	(Z70271) Similarity to Yeast E1-E2 ATPase (SW:YED1_YEA ST); cDNA EST EMBL:D37634 comes from this gene; cDNA EST EMBL:D34653 comes from this gene; cDNA EST EMBL:D34527 comes from this gene; cDNA EST EMBL:D34527 comes from this	7e-048		
3787	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-008	<none></none>	<none></none>	<none></none>		
3788	M86400	Human phospholipase A2 mRNA, complete cds. > :: gb I34404 I34404 Sequence 8 from patent US 5597719	5e-088	<none></none>	<none></none>	<none></none>		
3789		Human HLA- SB(DP) alpha gene	0.47	3941737	(AF109719) BAT2 [Mus musculus]	2.4		
3790	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-015	3043662	(AB011141) KIAA0569 protein [Homo sapiens]	9.6		
3791		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-014		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	0.29		
3792		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012		Ig light chain - rainbow trout (fragment)	1.1		

		Nearest Neighbor	<del></del>		Nearest Neighbor			
	(1	BlastN vs. Genbank)		(BlastX	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3793	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete	5e-014	2072296	(U95098) mitotic phosphoprotein 4 [Xenopus laevis]			
3794	AF064104	Homo sapiens Cdc14B1 phosphatase mRNA, complete cds	3e-030	2662463	(AF023158) tyrosine phosphatase [Homo sapiens]	le-008		
3795	U29348	Salmonella enterica strain s2978 invasion protein SpaO (spaO), SpaP (spaP) and SpaQ (spaQ) genes, complete cds	0.0005	2291118	(AF016414) No definition line found [Caenorhabditis elegans]	9.6		
3796	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-016	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.6		
3797	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-010	1168719	C6.1A PROTEIN	0.004		
3798	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	481236	hypothetical protein - Madagascar periwinkle roseus]	3.4		
3799		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-008	423157	finger protein ZNF33A - human (fragment)	4.3		
3800		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.5		
3801		Caenorhabditis elegans cosmid C45E5	1.2	<none></none>	<none></none>	<none></none>		

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3802	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-008	1703028	CLATHRIN COAT ASSEMBLY PROTEIN AP47 HOMOLOG 2 (CLATHRIN COAT ASSOCIATED PROTEIN AP47 HOMOLOG 2) (GOLGI ADAPTOR AP-1 47 KD PROTEIN HOMOLOG 2) (HA1 47 KD SUBUNIT HOMOLOG 2) (CLATHRIN ASSEMBLY PROTEIN ASSEMBLY PROTEIN COMPL >gi 2134919 pir  A 57170 clathri	9.6		
3803	M31651	Homo sapiens sex hormone-binding globulin (SHBG) gene, complete cds	7e-017	<none></none>	<none></none>	<none></none>		
3804		Homo sapiens gene for thymidylate synthase, exons 1, 2, 3, 4, 5, 6, 7, complete cds	6e-038	<none></none>	<none></none>	<none></none>		
3805	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.7		
3806		Human mRNA for LIMK-2, complete cds	4e-096	<none></none>	<none></none>	<none></none>		
3807		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	2e-006	<none></none>	<none></none>	<none></none>		

		Nearest Neighbor BlastN vs. Genbank	)	Nearest Neighbor (BlastX vs. Non-Redundant Proteins)				
SEC	ACCESSIO	N DESCRIPTION	P VALUE	ACCESSION				
ID			TALUE	ACCESSION	DESCRIPTION	P VALUE		
380		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.004	<none></none>	<none></none>	<none></none>		
3809		gremlin mRNA, complete cds	0.36	3551167	(AB012131) Ich1 [Coprinus cinereus]	4.1		
3810	D78275	Human mRNA for proteasome subunit p42, complete cds	8e-019	1709804	26S PROTEASE REGULATORY SUBUNIT S10B (P44) (CONSERVED ATPASE DOMAIN PROTEIN 44) 26S proteasome regulatory subunit	0.001		
3811	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-009	<none></none>	[Homo sapiens] <none></none>	<none></none>		
3812	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>		
3813	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-014	3193162	(AF067618) No definition line found [Caenorhabditis elegans]	1e-027		
3814	AF085858	Homo sapiens full length insert cDNA clone YN49B07	le-017		(AF064553) NSD1 protein [Mus musculus]	4e-007		
3815	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-005	<none></none>	<none></none>	<none></none>		
3816	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0003	<none></none>	<none></none>	<none></none>		

	î	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3817	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-006	<none></none>	<none></none>	<none></none>		
3818	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2	<none></none>	<none></none>	<none></none>		
3819	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-006	416673	ATP SYNTHASE A CHAIN (PROTEIN 6) 3.6.1.34) protein 6 - liverwort (Marchantia polymorpha) mitochondrion >gi 786191 (M68929) atp6 [Marchantia polymorpha]	1.3		
3820	L14684	Rattus norvegicus nuclear-encoded mitochondrial elongation factor G mRNA, complete cds.	e-115	585084	ELONGATION FACTOR G, MITOCHONDRI AL PRECURSOR (MEF-G) >gi 543383 pir  S4 0780 translation elongation factor G, mitochondrial - rat >gi 310102	5e-038		
3821	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.2		
3822		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7e-012		(D87450) Similar to D.melanogaster parallel sister chromatids protein [Homo sapiens]	8.5		
3823		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-009	<none></none>	<none></none>	<none></none>		

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
3824	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-015	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.2	
3825	L48489	Homo sapiens N- acetylglucosamin yltransferase III	le-038	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	1e-008	
3826	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-008	<none></none>	<none></none>	<none></none>	
3827	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-014	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.9	
3828	. U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	le-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	1.4	
3829		Homo sapiens mRNA for APC 2 protein, complete cds	1e-017	3894265	(AB012162) APC 2 protein [Homo sapiens]	0.45	
3830		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-010		HYPOTHETICAL 14.1 KD PROTEIN IN UPF3-SMD1 INTERGENIC REGION >gi 2132599 pir  S 64368 probable membrane protein YGR073c - yeast (Saccharomyces cerevisiae) >gi 1323101 gn1 P1 D e243468 (Z72858) ORF YGR073c [Saccharomyces cerevisiae]	1.3	

	]	Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3831	S54914	bup=5'of bmi-1 proviral insertion locus [mice, Genomic/mRNA, 2022 nt]	e-140	265569	(S54914) bup=5'of bmi-1 proviral insertion locus [mice, Peptide, 195 aa] [Mus sp.]	2e-059		
3832	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-009	<none></none>	<none></none>	<none></none>		
3833	Ü95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-012	<none></none>	<none></none>	<none></none>		
3834	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-015	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.9		
3835	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-007	1805270	(U81983) endothelial PAS domain protein 1 [Mus musculus]	6.6		
3836	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
3837	X92814	H.sapiens mRNA for rat HREV107- like protein	1e-032	1709969	H-REV 107 PROTEIN	3e-013		
3838	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-011	2183251	(AF002227) putative polyprotein [border disease virus strain C413]	0.015		
3839		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-009	1142660	(U23502) POM1 [Plasmodium chabaudi chabaudi]	7.3		
3840		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.3		
3841		Cloning vector DNA, complete sequence.	2e-058		ORF [Simian virus 40]	4e-005		

		Nearest Neighbor		<u> </u>	Nearest Neighbor	<del></del>	
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3842	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.9	
3843	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.3	
3844	Y15059	Homo sapiens hng/RC3 gene, exons 2,3 & 4	0.053	<none></none>	<none></none>	<none></none>	
3845	X99330	R.norvegicus mRNA for IP63 protein	2e-027	<none></none>	<none></none>	<none></none>	
3846	AF100303	Caenorhabditis elegans cosmid Y7G10A	0.53	<none></none>	<none></none>	<none></none>	
3847	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
3848	AF040094	Mus musculus inositol polyphosphate 5-phosphatase II (INPP5P) mRNA, complete cds	0.15	<none></none>	<none></none>	<none></none>	
3849	Y15724	Homo sapiens SERCA3 gene, exons 1-7 (and joined CDS)	2e-013	<none></none>	<none></none>	<none></none>	
3850	AB011144	Homo sapiens mRNA for KIAA0572 protein, partial cds	0	3043668	(AB011144) KIAA0572 protein [Homo sapiens]	1e-080	
3851		Homo sapiens clone 1400 unknown protein mRNA, partial cds	0		(AF020762) unknown protein [Homo sapiens]	2.8	
3852		Human DNA sequence from cosmid U226D1 on chromosome X. Contains STS, complete sequence [Homo sapiens]	0.0002	<none></none>	<none></none>	<none></none>	

	ľ	Nearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3853	M73700	Human neutrophil lactoferrin mRNA, complete cds and 5' promoter region.	0.0002	<none></none>	<none></none>	<none></none>	
3854	D31793	Human CD40 ligand (CD40L) gene, 5' flanking region and exon 1	0.046	<none></none>	<none></none>	<none></none>	
3855	U16300	Human lysyl hydroxylase (PLOD) gene, intron 9, complete sequence.	0.0002	126363	LAMININ ALPHA-1 CHAIN PRECURSOR precursor - human	0.18	
3856	U61241	Homo sapiens p47-phox pseudogene, clone P41, exon 1	0.14	<none></none>	<none></none>	<none></none>	
3857	D37791	Mouse mRNA for beta-1,4-galactosyltransfer ase	e-105	3880102	(Z93390) similar to FYVE zinc finger; cDNA EST yk265b4.5 comes from this gene; cDNA EST yk359g9.5 comes from this gene; cDNA EST yk319c2.5 comes from this gene [Caenorhabditis elegans] zinc finger; cDNA EST yk265b4.5 comes from this gene; cDNA EST yk359g9	3e-021	
3858		H.sapiens CpG DNA, clone 18a8, reverse read cpg18a8.rt1b.	1.2	<none></none>	<none></none>	<none></none>	
3859		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-014	2879809	(AJ223320) trp- like protein [Loligo forbesi]	1.5	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
3860	U22296	Rattus norvegicus casein kinase 1 gamma 1 isoform mRNA, complete cds	e-126	3024053	CASEIN KINASE I, GAMMA I ISOFORM kinase I gamma I isoform [Rattus norvegicus]	1e-061	
3861	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-014	113669	!!!! ALU CLASS D WARNING ENTRY !!!!	2.6	
3862	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>	
3864	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-010	<none></none>	<none></none>	<none></none>	
3865	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-011		CGMP- INHIBITED 3',5'- CYCLIC PHOSPHODIEST ERASE B (CYCLIC GMP INHIBITED PHOSPHODIEST ERASE B) (CGI- PDE B) (CGIPDE1) phophodiesterase - human >gi 145302 (U38178) cyclic nucleotide phophodiesterase [Homo sapiens] 3B [Homo sapiens]	4.4	
3866		Caenorhabditis elegans cosmid C07D2	0.2	<none></none>	<none></none>	<none></none>	
3867	Z23091	H.sapiens GPV gene encoding platelet glycoprotein V precursor	5e-013		!!!! ALU SUBFAMILY SP WARNING ENTRY	0.82	

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		,	s. Non-Redundant P			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3868	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-007	2291255	(AF016430) weak similarity to Bacillus subtillis spore coat protein precursor (GB:L42066) and Dictyostelium discoideum calcium binding protein (NID:g426313) in proline-rich regions [Caenorhabditis elegans]	8.4		
3869	U5 <b>87</b> 39	Caenorhabditis elegans cosmid F28C10.	0.33	<none></none>	<none></none>	<none></none>		
3870	L48473	Homo sapiens (subclone 7_e11 from P1 H16) DNA sequence.	3e-008	<none></none>	<none></none>	<none></none>		
3871	U95097	Xenopus laevis mitotic phosphoprotein 43 mRNA, partial cds	0.015	<none></none>	<none></none>	<none></none>		
3872	Z73360	Human DNA sequence from cosmid 92M18, BRCA2 gene region chromosome 13q12-13.	4e-020	<none></none>	<none></none>	<none></none>		
3873	Z71572	O.aries DNA for immunoglobulin joining regions	1.2	1699130	(U80027) weak similarity to Arabadopsis thaliana phytochrome E (PIR:S41912) [Caenorhabditis elegans]	6.1		
3874		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	1.7		

	ă G	Nearest Neighbor		<del></del>	Nonest Nai-Li	· · · · · · · · · · · · · · · · · · ·
	(B	BlastN vs. Genbank	<b>)</b>	(BlactY)	Nearest Neighbor vs. Non-Redundant I	)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3875		Homo sapiens mRNA for KIAA0720 protein, partial cds	1.2	107240	oncogene 1 (tre-2 locus) (clone 210) - human	0.049
3876		Mus musculus cyclin G1 gene, partial cds	0.14	<none></none>	<none></none>	<none></none>
3877		Plasmodium falciparum chromosome 2, section 45 of 73 of the complete sequence	1.8	<none></none>	<none></none>	<none></none>
3878	AF061244	Agrocybe aegerita B type DNA polymerase (Mtpol) gene, complete cds; tRNA-Asn gene, complete sequence; and unknown genes, mitochondrial genes for mitochondrial products	0.16	3153241	(AF053004) class I cytokine receptor [Homo sapiens]	5.8
3879	M73047	Homo sapiens tripeptidyl peptidase II mRNA, complete cds.	3e-028		TRIPEPTIDYL- PEPTIDASE II (TPP II) tripeptidyl- peptidase II (EC 3.4.14.10) - human sapiens]	0.35
3880		Suncus murinus mitochondrial DNA, D-loop region, partial sequence, isolate TKU-M205	0.17	107422	proline-rich protein PRB3S (cys) - human	0.4
3881		H.sapiens gene for casein kinase II alpha subunit > subunit alpha [human, Genomic, 18862 nt]	1e-008		!!!! ALU CLASS C WARNING ENTRY !!!!	0.54

	Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3882	U54558	Human translation initiation factor eIF3 p66 subunit mRNA, complete cds	3e-018	<none></none>	<none></none>	<none></none>	
3883	AB012259	Homo sapiens DNA, anonymous heat-stable fragment RP12-8	5e-012	<none></none>	<none></none>	<none></none>	
3884	U44130	Xenopus laevis p58 mRNA, partial cds	0.15	3873716	(Z74026) similar to 1- aminocyclopropan e-1-carboxylate synthase; cDNA EST EMBL:D34239 comes from this gene; cDNA EST EMBL:D35575 comes from this gene; cDNA EST EMBL:D64242 comes from this gene; cDNA EST EMBL:D67126 comes from 1- aminocyclopropan e-1-carbo	5.3	
3885		Homo sapiens mRNA for KIAA0448 protein, complete cds	0.006	<none></none>	<none></none>	<none></none>	
3886		Lycopersicon esculentum cv Red River unknown sequence PCR random amplified RAPD band 9	0.045	<none></none>	<none></none>	<none></none>	
3887		Cloning vector DNA, complete sequence.	3e-008		(AF002227) putative polyprotein [border disease virus strain C413]	0.67	

	Nearest Neighbor			Nearest Neighbor			
	ľ	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3888	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-006	<none></none>	<none></none>	<none></none>	
3889	U67564	Methanococcus jannaschii section 106 of 150 of the complete genome	1.3	2920535	(AF018081) type XVIII collagen [Homo sapiens]	0.73	
3890	AE000720	Aquifex aeolicus section 52 of 109 of the complete genome	1.3	<none></none>	<none></none>	<none></none>	
3891	AB011230	Zaglossus bruijni mitochondrial gene for NADH dehydrogenase subunit 1, partial cds	3.6	<none></none>	<none></none>	<none></none>	
3892	Z96177	H.sapiens telomeric DNA sequence, clone 10QTEL040, read 10QTELOO040.s eq	1e-042	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.0001	
3893	AF067646	Cloning vector pCMV-scriptEX, complete sequence	3e-029	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.001	
3894	<b>Z699</b> 19	Human DNA sequence from cosmid 91K3, Huntington's Disease Region, chromosome 4p16.3 contains CpG island.	3.8	<none></none>	<none></none>	<none></none>	
3895	X75757	G.gallus cycB3 mRNA.	6e-036		G2/MITOTIC- SPECIFIC CYCLIN B3	4e-013	
3896	L27833	Bos taurus pregnancy- associated glycoprotein-1	0.48		(X87336) DNA endonuclease [Peperomia polybotrya]	7.5	

	]	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3897	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.14	3169059	(AL023704) weak similarity to B.subtilis spore outgrowth factor B [Schizosaccharom yces pombe]	5e-052	
3898	X64123	H.sapiens PVR gene for poliovirus receptor (exon 8)	7e-006	2444416	(AF020484) NADH dehydrogenase- like protein [Gleditsia fera]	0.55	
3899	Z81043	Caenorhabditis elegans cosmid C29F3, complete sequence [Caenorhabditis elegans]	0.44	266459	P-SELECTIN PRECURSOR (GRANULE MEMBRANE PROTEIN 140) (GMP-140) (PADGEM) (CD62P) mouse >gi 200553 (M87861) P- selectin [Mus musculus]	1.8	
3900	AJ001235	Papio hamadryas ERV-9 like LTR insertion	3e-050	3126961	(AF061747) cell division protein FtsZ homolog	1.2	
3901	AE001314	Chlamydia trachomatis section 41 of 87 of the complete genome	1.2	<none></none>	<none></none>	<none></none>	
3902		H.sapiens mRNA for DLG2	2e-048	3659505	(AC005084) similar to mouse mCASK-A; similar to e1288039	1e-054	
3903		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>	
3904		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-009		(U01849) ORF1 [Trypanosoma brucei]	0.08	

	Nearest Neighbor			Nearest Neighbor			
	(E	BlastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE	
3905	D88982	Clostridium botulinum DNA for C2 toxin component-I and component-II, complete cds	0.38	1082769	RNA helicase A - human	5.6	
3906	D50418	Mouse mRNA for AREC3, partial cds	1e-041	2137398	homeotic protein AREC3 (clone SM) - mouse	0.044	
3907	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-005	<none></none>	<none></none>	<none></none>	
3908	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-007	2314677	(AE000648) cation-transporting ATPase, P-type (copA)	0.36	
3909	U72745	Dictyostelium discoideum cysteine proteinase	0.014	<none></none>	<none></none>	<none></none>	
3910	AJ011972	Homo sapiens mRNA for histone deacetylase-like protein (JM21)	3e-081	<none></none>	<none></none>	<none></none>	
3911	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-011	<none></none>	<none></none>	<none></none>	
3912		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.002	<none></none>	<none></none>	<none></none>	
3913	AC001032	Homo sapiens (subclone 2_c11 from P1 H48) DNA sequence	9e-009		RETROVIRUS- RELATED POL POLYPROTEIN	3.2	
3914		S.cerevisiae CBP3 protein gene, complete cds.	3.3	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor			Nearest Neighbor			
CEA	(B ACCESSION	lastN vs. Genbank) DESCRIPTION		(BlastX vs. Non-Redundant Proteins)				
SEQ ID			P VALUE	ACCESSION	DESCRIPTION	P VALUE		
3915	D78572	House mouse; Musculus domesticus mRNA for membrane glycoprotein, complete cds > :: dbj E12950 E129 50 cDNA GA3- 43 encoding novel polypeptide which appear when differentiate from	4e-044	1545807	(D78572) membrane glycoprotein [Mus musculus]	le-020		
		embryo-tumor cell P19 to nerve cell						
3916	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	1.1		
3917	U29923	Human AMP deaminase (AMPD3) gene, intron 1a and promoter 1b.	0.04	3256504	(AP000001) 115aa long hypothetical protein [Pyrococcus horikoshii]	0.094		
3918	Z68327	Human DNA sequence from cosmid U25D11, between markers DXS366 and DXS87 on chromosome X.	5e-015	<none></none>	<none></none>	<none></none>		
3919		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-013	<none></none>	<none></none>	<none></none>		
3920		Human 5-HT1D- type serotonin receptor gene, complete cds.	0		5- HYDROXYTRYP TAMINE 1D RECEPTOR human >gi 177772 (M89955) 5- HT1D-type serotonin receptor receptor:ISOTYPE =1D-alpha [Homo	3e-053		

		Nearest Neighbor		<del> </del>	Nearest Neighbor		
	(E	BlastN vs. Genbank)	)	(BlastX	(BlastX vs. Non-Redundant Proteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
					sapiens]		
3921	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-008	3879698	(Z78065) predicted using Genefinder	9.1	
3922	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.002	3184285	(AC004136) hypothetical protein [Arabidopsis thaliana]	9.5	
3923	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.005	139805	XFIN PROTEIN >gi 65234 (X06021) Xfin protein (AA 1 - 1350) [Xenopus laevis]	1.9	
3924		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012	<none></none>	<none></none>	<none></none>	
3925		Homo sapiens 22 kDa actin-binding protein	le-020	103509	I factor 2 (transposon) - fruit fly protein [Drosophila teissieri]	5.5	
3926		red photopigment gene {Alu repeat region, long intron 1} [human, peripheral blood leucocytes, Genomic, 1987 nt]	7e-006	<none></none>	<none></none>	<none></none>	
3927	] ]	Homo sapiens mRNA for MEGF9, partial eds	0		(AB011542) MEGF9 [Homo sapiens]	2e-095	

	1	Nearest Neighbor			Nearest Neighbor	
	(B	lastN vs. Genbank)			s. Non-Redundant P	roteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3928	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>
3929	X67312	P.pijperi mitochondrion DNA for Vaccinia virus- like terminal loop structure	6e-006	<none></none>	<none></none>	<none></none>
3930	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-010	3080474	(AL022602) cell divisin protein FtsW	1.2
3931	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-006	3769486	(AF074946) DNA polymerase [hemorrhagic enteritis virus]	1.3
3932	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	<none></none>	<none></none>	<none></none>
3933	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-008	1890266	(U88585) NADH- dehydrogenase subunit 1 [Quedius mesomelinus]	4.2
3934	Z12112	pWE15A cosmid vector DNA	1e-051	987050	(X65335) lacZ gene product [unidentified cloning vector]	4e-009
3935		Listeria monocytogenes low temperature requirement A protein (ltrA) gene, complete cds	0.005	<none></none>	<none></none>	<none></none>
3936		D. melanogaster cyclin A gene	0.37		(AF016452) similar to the beta transducin family	1e-028

3937 U95102 Xenopus laevis 9e-009 3687507 (AL031788) C2H2 mitotic type zinc finger	oteins) P VALUE 7.3
SEQ ACCESSION DESCRIPTION P VALUE ACCESSION DESCRIPTION P  3937 U95102 Xenopus laevis 9e-009 3687507 (AL031788) C2H2 type zinc finger	P VALUE
3937   U95102   Xenopus laevis   9e-009   3687507   (AL031788) C2H2   mitotic   type zinc finger	
mitotic   308/30/ (AL031/88) C2H2	7.3
1 1 IVDE ZINC MIGEL 1	
loo mark	
90 mRNA, [Schizosaccharom yces pombe]	
3938 780361 [Homisson III A 2 070 ]	NONE>
DRB pseudogene,	NONE>
repeat region;	
3939 L22551 Plasmodium 1.2 <none> &lt;</none>	NONE>
yoelii yoelii	1101112
merozoite surface	
protein 1 gene, 5'	
end. 3940 X74178 B.taurus 0.005 2291118 (AF016414) No.	
0.003 2291118 (AF016414) No	2.5
DATA DATA A SECOND TO SECOND S	
DNA INRA 153   found   [Caenorhabditis	
elegans	
3941 U95094 Xenopus laevis 9e-010 1354361 (U52008) Mrp50	0.48
XL-INCENP [Streptococcus	0.40
(XL-INCENP)   pyogenes]	j
mRNA, complete	
	ı
NONES	NONE>
precurosor mRNA, complete	
cds	
39/3 1/05/02 V	NONE>
mitotic	NONE>
phosphoprotein	
90 mRNA,	1
complete cds	1
3944 M37470 Human beta-N- 5e-025 728832 !!!! ALU	4.3
acetylhexosamini SUBFAMILY SB	
dase (HEXB) gene, deletion WARNING ENTRY	
gene, deletion ENTRY junction.	
3945 LI05004 Venezuele : 6 006	0.04
XL-INCENP   6e-006   97885   salivary agglutinin   (	0.84
(XL-INCENP) - Streptococcus	
mRNA, complete sanguis	-
cds	- 1

		Nearest Neighbor			Nearest Neighbor	
255		BlastN vs. Genbank			s. Non-Redundant P	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3946	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	140550	HYPOTHETICAL 259 KD PROTEIN (ORF 2136) >gi 81341 pir  A05 037 hypothetical protein 2136 - liverwort (Marchantia polymorpha) chloroplast >gi 11665	2.5
3947	L13176	Papio anubis apolipoprotein C- I gene, partail mRNA.	0.0005	<none></none>	<none></none>	<none></none>
3948	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-006	580702	(X74410) fixP gene product [Azorhizobium caulinodans]	2.9
3949	X92987	B.primigenius mRNA for coat protein gamma- cop	2e-036	1706000	COATOMER GAMMA SUBUNIT (GAMMA-COAT PROTEIN) (GAMMA-COP) >gi 1066165 (X92987) coat protein gamma- cop [Bos primigenius]	2e-008
3950	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-008	223232	protein src [Avian sarcoma virus]	0.37
3951	AF037350	Rattus norvegicus NF-E2-related factor 2 mRNA, complete cds	1e-013		(AC004520) similar to NFE2- related transcription factors; similar to 148694 (PID:g2137676) [Homo sapiens]	8e-073
3952		Homo sapiens mRNA for histone deacetylase-like protein (JM21)	8e-092	<none></none>		<none></none>

		Nearest Neighbor		<del> </del>	Nearest Neighbor	<del></del>
	(B	lastN vs. Genbank)		(BlastX)	s. Non-Redundant F	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3953	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>
3954	U95 <b>0</b> 94	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>
3955	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	630444	CR5 protein - Trypanosoma brucei >gi 468424	4.3
3956	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	630444	CR5 protein - Trypanosoma brucei >gi 468424	4.3
3957	AF086172	Homo sapiens full length insert cDNA clone ZB89E10	9e-062	1172991	60S RIBOSOMAL PROTEIN L21 sapiens] >gi 984143 (X89401) ribosomal protein L21 [Homo sapiens] >gi 1096939 prf  2 113200B ribosomal protein L21	9e-024
3958		Human mRNA for KIAA0094 gene, partial cds	2e-058		PUTATIVE METHIONINE AMINOPEPTIDA SE 1 (METAP 1) (PEPTIDASE M 1) (KIAA0094) product is related to S.cerevisiae methionine aminopeptidase. [Homo sapiens]	1e-016

		Nearest Neighbor			Nearest Neighbor	
		lastN vs. Genbank)	, <u></u>		s. Non-Redundant P	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3959	AF034755	Homo sapiens microphthalmia- associated transcription factor (MITF) gene, promoter region and partial cds	2e-005	<none></none>	<none></none>	<none></none>
3960	Z96177	H.sapiens telomeric DNA sequence, clone 10QTEL040, read 10QTELOO040.s eq	3e-011	<none></none>	<none></none>	<none></none>
3961	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-012	141028	NADH- UBIQUINONE OXIDOREDUCT ASE CHAIN 5 >gi 76351 pir  QQ UTC5 NADH dehydrogenase (ubiquinone)	1.1
3962	U93237	Human menin (MEN1) gene, complete cds	0.37	134853	TRANSCRIPTIO N INITIATION PROTEIN SPT5 yeast (Saccharomyces cerevisiae) >gi 172680 (M62882) SPT5 protein [Saccharomyces cerevisiae] >gi 854480 (Z49810) Spt5p [Saccharomyces cerevisiae]	0.49
3963		Caenorhabditis elegans cosmid R12G8, complete sequence [Caenorhabditis elegans]	0.008	1171084	A/G-SPECIFIC ADENINE GLYCOSYLASE	6.5
3964		Human antithrombin III gene, exon 1 and partial cds.	2e-023		!!!! ALU SUBFAMILY SQ WARNING ENTRY	9e-006

		Nearest Neighbor			Nearest Neighbor	
850	(E	BlastN vs. Genbank)		(BlastX v	s. Non-Redundant I	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3965	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-007	3650488	(AF042273) signa transducing adaptor molecule 2A [Homo sapiens]	3.6
3966	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>
3967	AF086207	Homo sapiens full length insert cDNA clone ZC48C05	1e-009	1077301	probable membrane protein YOL101c - yeast similarity with bee NADH- ubiquinone oxidoreductase chain 2 [Saccharomyces cerevisiae] >gi 1419955 gnl PI D e252291	0.41
3968	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	6.2
3969		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	2274853	(AJ000502) iron regulatory protein	0.15
3970		Cercopithecus aethiops transmembrane glycoprotein CD99-cos7 mRNA, partial cds	2e-015		(U82166) CD99 type II-COS7 [Cercopithecus aethiops]	0.011
3971		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>

		Nearest Neighbor			Nearest Neighbor	
	,	lastN vs. Genbank)			s. Non-Redundant P	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
3972	M87680	Human simple repeat polymorphism.	3e-040	3874946	(Z79598) cDNA EST EMBL:D34748 comes from this gene; cDNA EST yk218e6.5 comes from this gene; cDNA EST yk244e3.5 comes from this gene; cDNA EST yk248a4.5 comes from this gene; cDNA EST yk250a3.5 comes from this gene; cDNA EST	1e-008
3973	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-010	119396	ENV POLYPROTEIN (COAT POLYPROTEIN) reticuloendothelios is virus >gi 61786 (X01455) env- protein (capsid protein) [Reticuloendotheli osis virus] >gi 209712 (K02537) envelope polyprotein [Avian reticuloendothelios is virus A]	4.6
3974	AB011143	Homo sapiens mRNA for KIAA0571 protein, complete cds	e-151	1708199	HSC70- INTERACTING PROTEIN	4e-023
3975	AC001050	Homo sapiens (subclone 3_e9 from P1 H55) DNA sequence	1e-019	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	3e-006
3976	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-008	1077543	probable membrane protein YDR198c - yeast	5.9

		Nearest Neighbor			Nearest Neighbor	
SEQ	ACCESSION	BlastN vs. Genbank)		(BlastX	vs. Non-Redundant	Proteins)
ID		DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALU
3977		Drosophila virilis mRNA for GAGA factor class B-isoform	0.056	<none></none>	<none></none>	<none< td=""></none<>
3978		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-014	478731	replication protein - Butyrivibrio fibrisolvens plasmid pRJF1 >gi 152515 (M94552) replication protein [Plasmid pRJF1]	
3979	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-006	3319480	(AF077546) No definition line found [Caenorhabditis elegans]	6.5
3980	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-014	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3
3981	AF003350	Mus musculus Npc1 gene, and npc-nih intron containing the MaLR inserted sequence	4e-007	1170261	OUTER MEMBRANE USHER PROTEIN HIFC PRECURSOR	6.4
3982	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.001	<none></none>	<none></none>	<none></none>
3983	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-006	<none></none>	<none></none>	<none></none>
3984		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-007	<none></none>	<none></none>	<none></none>
3985		Homo sapiens mRNA for KIAA0470 protein, complete cds	e-163	[:	(AB007939) KIAA0470 protein [Homo sapiens]	2e-057

	7	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		L	s. Non-Redundant P	,	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
3986	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.9	
3987	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-006	<none></none>	<none></none>	<none></none>	
3988	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	1e-006	<none></none>	<none></none>	<none></none>	
3989	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.008	2414527	(Z99263) hypothetical protein MLCB637.01c [Mycobacterium leprae]	1.3	
3990	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.074	464237	NADH- UBIQUINONE OXIDOREDUCT ASE CHAIN 4	2.2	
3991	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-010		(Z69360) Weak similarity to Eimeria thrombospondin (PIR Acc. No. A45517); cDNA EST EMBL:M89266 comes from this gene; cDNA EST yk295b9.5 comes from this gene [Caenorhabditis elegans] Eimeria thrombospondin (PIR Acc. No. A45517); cDNA EST EMBL:M89266 comes	7.7	

		Nearest Neighbor		Ţ	Nearest Neighbor	
	(I	BlastN vs. Genbank	)	(BlastX	vs. Non-Redundant	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
	1105102	 				
3992	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	400624	SODIUM- AND CHLORIDE-DEPENDENT GABA TRANSPORTER 2 >gi 348413 pir  A4 5078 gamma-aminobutyric acid transporter protein 2 - rat >gi 202523 (M95762) GABA	
3993	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-015	2072296	transporter [Rattus norvegicus] (U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.9
3994	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	6.9
3995	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-008	2286159	(AF007831) glycoprotein H [Human herpesvirus 7]	6.3
3996		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-014	<none></none>	<none></none>	<none></none>
3997	D16888	Human HepG2 3' region cDNA, clone hmd2c03	e-104	<none></none>	<none></none>	<none></none>
3998	İ	Rattus norvegicus TA1 mRNA, complete cds.	1e-031		(AF077866) amino acid transporter E16 [Homo sapiens]	le-050

	<u> </u>	Nearest Neighbor		I	Nearest Neighbor	<del></del>
		lastN vs. Genbank)			s. Non-Redundant P	roteins)
SEQ	ACCESSION	DESCRIPTION	P VALUE	,	DESCRIPTION	P VALUE
ID						
3999	AF037219	Homo sapiens PIX1 mRNA sequence	5e-013	586863	HYPOTHETICAL 9.2 KD PROTEIN IN RECR-BOFA INTERGENIC REGION >gi 1075824 pir  A 41869 bofA 5'- region hypothetical protein orf74 - Bacillus subtilis subtilis] >gi 2632289 gnl PI D e1181955 (Z99104) yaaL	2.7
4000	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-009	<none></none>	<none></none>	<none></none>
4001	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-015	<none></none>	<none></none>	<none></none>
4002	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-013		HYPOTHETICAL 105.7 KD PROTEIN IN TPK3-PIR1 INTERGENIC REGION >gi 481105 pir  S3 7786 hypothetical protein YKL165c - yeast (Saccharomyces cerevisiae) >gi 407483 (Z26877) unknown [Saccharomyces cerevisiae] >gi 486289 (Z28165) ORF YKL165c	3e-019

		Nearest Neighbor	· · · · · · · · · · · · · · · · · · ·		Nearest Neighbor	
SEQ	ACCESSION	BlastN vs. Genbank		(BlastX	vs. Non-Redundant	Proteins)
ID			P VALUE	ACCESSIO	N DESCRIPTION	P VALUE
4003	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-014	<none></none>	<none></none>	<none></none>
4004	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-008	228110	T cell receptor variable region:SUBUNIT =beta:ISOTYPE= 9 [Rattus norvegicus]	
4005	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-014	930045	(X15332) alpha-1 (III) collagen [Homo sapiens]	0.52
4006	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	6.2
4007	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-015	2960195	(Y13051) tax [Human T-cell lymphotropic virus type 2b]	0.68
4008	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-007	3523099	(AF016271) Ksp- cadherin [Mus musculus]	6.6
4009	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-015	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.7
4010	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-015	<none></none>	<none></none>	<none></none>
4011		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	2121280	(AF000270) lipoprotein [Borrelia burgdorferi]	1.5

		Nearest Neighbor	<del></del>	Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4012	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012	<none></none>	<none></none>	<none></none>	
4013	L20489	Zea mays NADH dehydrogenase subunit 4 (complex I) (nad4) gene, exon 4.	3.5	<none></none>	<none></none>	<none></none>	
4014	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-014	<none></none>	<none></none>	<none></none>	
4015	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-016	927407	(X89858) actin binding protein [Drosophila melanogaster]	0.02	
4016	U05659	Human 17beta- hydroxysteroid dehydrogenase type 3 mRNA, complete cds	1e-092	1169300	ESTRADIOL 17 BETA- DEHYDROGENA SE 3 DEHYDROGENA SE) >gi 1085271 pir  S 43928 17-beta- hydroxysteroid dehydrogenase - human >gi 531162 hydroxysteroid dehydrogenase:IS OTYPE=3 [Homo sapiens]	4e-029	
4017	U02428	Cloning vector pDR2, complete sequence	2e-066	987050	(X65335) lacZ gene product [unidentified cloning vector]	2e-009	

		Nearest Neighbor			Nearest Neighbor	
		BlastN vs. Genbank	)	(BlastX	vs. Non-Redundant P	roteins)
SEQ ID	ACCESSION	DESCRIPTION	PVALUE	ACCESSION		P VALUE
4018	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-018	3979938	(AL034393) predicted using Genefinder; cDNA EST yk343c12.5 comes from this gene; cDNA EST yk402e12.5 comes from this gene; cDNA EST yk457e8.5 comes from this gene; cDNA EST yk470f2.5 comes from this gene; cDNA EST yk470f2.5 comes from this gene;	
4019	Ù95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-009	<none></none>	<none></none>	<none></none>
4020	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	le-010	804806	(M13100) unknown protein [Rattus norvegicus]	5.7
4021	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-014	<none></none>	<none></none>	<none></none>
4022	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-011	<none></none>	<none></none>	<none></none>
4023		Human mariner2 transposable element, complete consensus sequence	e-124	1698455	(U49974) mariner transposase [Homo sapiens]	2e-028
4024		Rattus norvegicus nuclear pore complex protein NUP107 mRNA, complete cds.	e-175		NUCLEAR PORE COMPLEX PROTEIN NUP107	3e-093

	1	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4025	AB001632	Homo sapiens DNA for cGMP- binding cGMP- specific phosphodiesteras e (PDE5), exon 18	7e-007	<none></none>	<none></none>	<none></none>		
4026	X96401	H.sapiens mRNA for ROX protein	8e-070	<none></none>	<none></none>	<none></none>		
4027	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.015	<none></none>	<none></none>	<none></none>		
4028	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	9e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.2		
4029	AJ006064	Rattus norvegicus mRNA for coronin-like protein	e-124	3757680	(AJ006064) coronin-like protein [Rattus norvegicus]	2e-091		
4030	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	1184072	(U40766) COL-1 [Meloidogyne incognita]	0.019		
4031	Ù95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.002	231721	T-CELL SURFACE GLYCOPROTEIN CD8 ALPHA CHAIN PRECURSOR (T- LYMPHOCYTE DIFFERENTIATI ON ANTIGEN T8/LEU-2) >gi 38145 (X60223) CD8 alpha chain	5.8		
4032	į	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-009	<none></none>	- <none></none>	<none></none>		

		Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX v	s. Non-Redundant I	Proteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4033	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.005	<none></none>	<none></none>	<none></none>		
4034	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-011	1020391	(L48340) alcohol dehydrogenase [Methylobacteriu m extorquens]	1.4		
4035	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	2291282	(AF016433) similar to C. elegans olfactory receptor ODR-10 (NID:g1235900) [Caenorhabditis elegans]	4.4		
4036	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-010	478993	DNA-binding protein TAF-II 250K - fruit fly TATA-binding protein associated factor II 250, TBP associated factor II 250, TAFII250 {C-terminal}	5e-006		
4037		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	4.4		
4038		Human HLA- SB(DP) alpha gene	2e-025	<none></none>	<none></none>	<none></none>		
4039		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-008	<none></none>	<none></none>	<none></none>		

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
4040	J03798	Human autoantigen small nuclear ribonucleoprotein Sm-D mRNA, complete cds.	2e-048	3874988	(Z74029) Similarity to C.elegans alcohol dehydrogenase (WP:C17G10.8); cDNA EST EMBL:D66106 comes from this gene; cDNA EST EMBL:D69117 comes from this gene; cDNA EST EMBL:D69761 comes from this gene; cDNA EST EMBL:D69761 comes from this	5.6	
4041	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-006	2292986	(AJ000496) cyclic nucleotide-gated channel beta subunit [Rattus norvegicus]	0.5	
4042	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.5	
4043	AF020187	Amblyomma americanum ecdsyteroid receptor	1.2	<none></none>	<none></none>	<none></none>	
4044	Z68758	Human DNA sequence from cosmid cN85E10 on chromosome 22q11.2-qter	2e-035	<none></none>	<none></none>	<none></none>	
4045	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-008	2529632	(L78917) virion protein [Rubella virus]	4.6	
4046	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-005	<none></none>	<none></none>	<none></none>	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P	roteins)	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4047	AB007957	Homo sapiens mRNA, chromosome 1 specific transcript KIAA0488		728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.063	
4048	M64716	Human ribosomal protein S25 mRNA, complete cds.		2660720	(AF029678) PHF1 [Homo sapiens]	7e-013	
4049	AB002437	Homo sapiens mRNA from chromosome 5q21-22, clone:LI33	6e-026	<none></none>	<none></none>	<none></none>	
4050	Z74893	S.cerevisiae chromosome XV reading frame ORF YOL151w	0.13	<none></none>	<none></none>	<none></none>	
4051	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-006	<none></none>	<none></none>	<none></none>	
4052	U43416	Human replication control protein 1 (PARC1) mRNA, complete cds.	2e-056	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.007	
4053	AF042346	Homo sapiens putative phenylalanyl-tRNA synthetase beta-subunit mRNA, complete cds	0	4104933	(AF042346) putative phenylalanyl- tRNA synthetase beta-subunit; PheHB [Homo sapiens]	e-123	
4054	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4055	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4056		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.6	
4057		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0005		(AF053091) eyelid [Drosophila melanogaster]	2.6	

	Nearest Neighbor			Nearest Neighbor				
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4058	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>		
4059	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-007	<none></none>	<none></none>	<none></none>		
4060	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	9.6		
4061	U11081	Human type 1 vasoactive intestinal peptide receptor (V1RG) gene, exon 3.	0.43	<none></none>	<none></none>	<none></none>		
4062	X82272	Human endogenous retrovirus env mRNA	8e-081	1196429	(M14123) pol/env ORF (bases 3878- 8257) first start codon at 4172; Xxx; putative [Homo sapiens]	6e-058		
4063		NF1=neurofibro matosis type 1 {deletion breakpoint, tetrameric STR} [human, neurofibrosarcom a tissue, Genomic Mutant, 698 nt]	0.0005	2494294	NEUROGENIC LOCUS NOTCH 3 PROTEIN	4.3		
4064		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0005	3264773	(AF072439) zinc- finger protein-37; ZFP-37 [Rattus norvegicus]	3.3		
4065	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	4.5		
4066		Cloning vector DNA, complete sequence.	9e-054	ł	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	0.6		

	]	Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4067	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-009	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.4		
4068	U31557	Ovine adenovirus IVa2 protein gene, DNA polymerase gene, terminal protein gene and 52,55 kDa protein gene, partial cds	0.0002	3002875	(AF042104) envelope glycoprotein [Human immunodeficiency virus type 1]	2.6		
4069	AL023973	Human DNA sequence from clone 1033E15 on chromosome 22q13.1-13.2. Contains part of a novel gene, ESTs and a GSS, complete sequence [Homo sapiens]	7e-017	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.061		
4070	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	2e-005	<none></none>	<none></none>	<none></none>		
4071	X07679	Xenopus laevis XK70A gene for type I keratin	0.39	2281044	(Z95636) laminin alpha 5 chain [Homo sapiens]	0.9		
4072	X96886	H.sapiens spcDNA, clone 2- 65	5e-014	<none></none>	<none></none>	<none></none>		
4073	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	9e-008	<none></none>	<none></none>	<none></none>		
4074	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	6e-005		activin receptor II STK3 precursor - African clawed frog >gi 260044 bbs 11 8656 (S49438) activin receptor, XAR1 [Xenopus, oocytes, Peptide,	1.3		

	7	Nearest Neighbor		Nearest Neighbor			
		astN vs. Genbank)		` <u> </u>	s. Non-Redundant P		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
10	175				510 aa]		
					-		
1075	A F007000	Destastantona	0.046	<none></none>	<none></none>	<none></none>	
4075	AF097909	Peptostreptococc us micros fibril-	0.040	\NONE>	NONE	NONL	
		like structure					
		subunit FibA					
		(fibA) gene, complete cds;					
		excreted protein					
		FibB (fibB) gene,					
		partial cds; and unknown gene					
4076	U95094	Xenopus laevis	4e-010	<none></none>	<none></none>	<none></none>	
		XL-INCENP					
		(XL-INCENP) mRNA, complete					
		cds					
4077	AL009008	Plasmodium	0.45	<none></none>	<none></none>	<none></none>	
		falciparum DNA					
		SEQUENCING					
		IN PROGRESS					
		*** from contig 3-58, complete					
		sequence					
4078	L34686	Serpulina	0.015	<none></none>	<none></none>	<none></none>	
	:	hyodysenteriae					
4079	AJ130718	flagellar protein Homo sapiens	1e-022	3582136	(AB015432)	2e-008	
'''	10150/10	mRNA for	022		LAT1 (L-type		
		glycoprotein-			amino acid		
		associated amino acid transporter			transporter 1) [Rattus		
		y+LAT1			norvegicus]		
4080	X51969	Cyprinus carpio	1.2	<none></none>	<none></none>	<none></none>	
		growth hormone					
4081	U95094	gene Xenopus laevis	3e-010	2072296	(U95098) mitotic	1.2	
'00'	0,00,7	XL-INCENP			phosphoprotein 44		
		(XL-INCENP)			[Xenopus laevis]		
		mRNA, complete					
L	L	cus					

	Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4082	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.4	
4083	L38961	Human putative transmembrane protein precursor (B5) mRNA, complete cds	1e-071	1174470	OLIGOSACCHA RYL TRANSFERASE STT3 SUBUNIT HOMOLOG (B5) (INTEGRAL MEMBRANE PROTEIN 1) musculus] >gi 1588285 prf  2 208301A integral membrane protein [Mus musculus]	1e-008	
4084	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-013		HYPOTHETICAL 12.5 KD PROTEIN ZK637.2 IN CHROMOSOME III >gi 102507 pir  S1 5787 hypothetical protein 1 (cosmid ZK637) - Caenorhabditis elegans Genefinder; cDNA EST yk217b5.3 comes from this gene; cDNA EST yk217b5.5 comes from this gene; cDNA EST yk340g12.3	7e-014	
4085		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	8e-008	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.4	
4086	1	T.aestivum VDAC 1 mRNA.	0.005	<none></none>	<none></none>	<none></none>	

	1	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4087	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	3123172	ZINC FINGER PROTEIN 151 (MIZ-1 PROTEIN) >gi 2230871 gnl PI D e286602 (Y09723) Miz-1 protein [Homo sapiens]	2e-010		
4088	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-010	180498	(M17517) complement H factor [Homo sapiens]	5.8		
4089	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-007	<none></none>	<none></none>	<none></none>		
4090	U24697	Chironomus samoensis nanos homolog (Cs nos) gene, complete cds.	0.13	3880999	(AL021492) Y45F10D.11 [Caenorhabditis elegans]	7e-022		
4091	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.7		
4092	U81504	Homo sapiens beta-3A-adaptin subunit of the AP-3 complex mRNA, complete cds	6e-088	2199512	(U81504) beta- 3A-adaptin subunit of the AP- 3 complex [Homo sapiens]	0.0001		
4093	AF053304	Homo sapiens mitotic checkpoint component Bub3	e-108	3378104	(AF047473) testis mitotic checkpoint BUB3 [Homo sapiens]	3e-024		
4094	S70431	type-1 angiotensin II receptor {exons 1 and 2, promoter} [human, peripheral lymphocytes, Genomic, 2853 nt, segment 1 of 2]	4e-013	126295	LINE-1 REVERSE TRANSCRIPTAS E HOMOLOG	3e-005		

		Nearest Neighbor			Nearest Neighbor	
SEQ		BlastN vs. Genbank)		(BlastX v	s. Non-Redundant	Proteins)
ID	ACCESSION		P VALUE	ACCESSION	DESCRIPTION	PVALUE
4095	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-013	<none></none>	<none></none>	<none></none>
4096	D10355	Human mRNA for alanine aminotransferase	3e-082	111345	alanine transaminase (EC 2.6.1.2) - rat	4e-042
4097	AF043252	Homo sapiens mitochondrial outer membrane protein (Tom40) gene, nuclear gene encoding mitochondrial protein, exons 7, 8 and 9	e-167	3941342	(AF043250) mitochondrial outer membrane protein [Homo sapiens] >gi 3941347 (AF043253) mitochondrial outer membrane protein [Homo sapiens] >gi 4105703 (AF050154) D19S1177E	7e-013
4098	U41668	Human deoxyguanosine kinase mRNA, complete cds	e-125	•	[Homo sapiens] DEOXYGUANOS INE KINASE PRECURSOR	2e-009
4099	AF017416	Bacillus thuringiensis d- endotoxin gene, complete cds	0.14	<none></none>	sapiens] <none></none>	<none></none>
4100	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-008	<none></none>	<none></none>	<none></none>
4101		Bacillus thuringiensis d- endotoxin gene, complete cds	0.14	<none></none>	<none></none>	<none></none>
4102		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-008	<none></none>	<none></none>	<none></none>
4103		Homo sapiens repetitive DNA	5e-024	<none></none>	<none></none>	<none></none>

1D 4104 4105 4106 4107	U95102 U95102 U33915	AstN vs. Genbank)  DESCRIPTION  Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds  Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds  Craterostigma	8e-007 7e-006	(BlastX v ACCESSION <none></none>	s. Non-Redundant P DESCRIPTION <none>  (U70848) C43G2.1 gene</none>	P VALUE    <none>   4e-038</none>
4104 4104 4105 4106	U95102 U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds Craterostigma	8e-007	<none></none>	<none> (U70848) C43G2.1 gene</none>	<none></none>
4105	U95102	mitotic phosphoprotein 90 mRNA, complete cds Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds Craterostigma			(U70848) C43G2.1 gene	
4106		mitotic phosphoprotein 90 mRNA, complete cds Craterostigma	7e-006	1572756	C43G2.1 gene	4e-038
4107	U33915				product [Caenorhabditis elegans]	
		plantagineum myb-related transcription factor (cpm10) gene, complete cds	0.14	<none></none>	<none></none>	<none></none>
4100	U46493	Cloning vector pFlp recombinase gene, complete cds	5e-033	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.004
4108	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-009	3417298	(AC002044) Alpha-fetoprotein enhancer binding protein (3' partial) [Homo sapiens]	0.33
4109	M16039	Dictyostelium discoideum pst- cath gene encoding pst- cathepsin, complete cds.	0.0002	<none></none>	<none></none>	<none></none>
4110	D21851	Human mRNA for KIAA0028 gene, partial cds	6e-005	<none></none>	<none></none>	<none></none>
4111		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7e-007		HYPOTHETICAL  37.4 KD PROTEIN IN SEC27-SSM1B INTERGENIC REGION >gi 2131603 pir  S 64149 hypothetical protein YGL136c - yeast (Saccharomyces cerevisiae) >gi 1246842 gnl PI	8e-006

	Nearest Neighbor			Nearest Neighbor			
	(B	BlastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION		
ID			202	Meebblon	DESCRIPTION	P VALUE	
			<del>                                     </del>		D e210737	<del> </del>	
					(X92670) G2830	ļ	
	ļ				(11)2010) 02030		
			<u> </u>		•		
4112	V75061						
4112	X75861	H.sapiens TEGT	e-180	2072296	(U95098) mitotic	2.6	
		gene			phosphoprotein 44		
4113	U95094	7	2 222		[Xenopus laevis]		
4113	U93094	Xenopus laevis XL-INCENP	8e-008	1399962	(U62317) choline	0.67	
		(XL-INCENP)			kinase isolog		
		mRNA, complete			384D8_3 [Homo		
		cds			sapiens]		
4114	Y07660	M.tuberculosis	2e-059	465847	HYPOTHETICAL	4 056	
	40.000	accBC gene	20-039	403047	66.5 KD	4e-056	
		g			PROTEIN		
			ĺ		F02A9.5 IN	ļ	
					CHROMOSOME	İ	
					III		
					>gi 280542 pir  S2		
					8313 hypothetical		
					protein F02A9.5 -	I	
					Caenorhabditis		
					elegans		
			1		Genefinder;		
			ļ		similar to	İ	
			1		Propionyl-CoA		
		ļ			carboxylase beta	1	
] ]					chain; cDNA EST EMBL:M89018		
					comes from this		
		ļ		ľ	gene; cDNA EST		
					EMBL:D2806		
4115	U95102	Xenopus laevis	0.014		(D30786) feline	1.9	
		mitotic			CD9 [Felis catus]	1.9	
		phosphoprotein	ľ		L. c outus		
		90 mRNA,		l		1	
		complete cds					

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant Pr	roteins)	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4116	D29011	Human mRNA for proteasome subunit X, complete cds	e-125	2136006	proteasome subunit MB1 - human (fragment) MB1=LMP7 homolog [human, JY T-cells, Peptide Partial, 215 aa] [Homo sapiens]	4e-008	
4117	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	6.2	
4118	Z11692	H.sapiens mRNA for elongation factor 2	e-178	119172	ELONGATION FACTOR 2 (EF-2) eEF-2 - human >gi 31106 (X51466) elongation factor 2 factor 2 [Homo sapiens]	6e-054	
4119	AF070530	Homo sapiens clone 24751 unknown mRNA	0	3387886	(AF070530) unknown [Homo sapiens]	4e-013	
4120	D12646	Mouse kif4 mRNA for microtubule- based motor protein KIF4, complete cds	6e-057	1170659	KINESIN-LIKE PROTEIN KIF4 musculus]	2e-022	
4121	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	<none></none>		<none></none>	
4122	X75861	H.sapiens TEGT gene	e-180	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.6	
4123		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012		LRR47 protein - fruit fly (Drosophila melanogaster) >gi 415947 (X75760) LRR47 [Drosophila melanogaster]	0.0002	

	1	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX v	s. Non-Redundant P	roteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4124	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5e-014	3876775	(Z81077) predicted using Genefinder; Similarity to Yeast protein 8248 (TR:G587531)	1e-015		
4125	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-008	480516	transposase (clone 22.5) - African malaria mosquito transposon mariner (fragment) >gi 159600	2.8		
4126	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-008	<none></none>	<none></none>	<none></none>		
4127	X65279	pWE15 cosmid vector DNA	2e-066	987050	(X65335) lacZ gene product [unidentified cloning vector]	4e-015		
4128	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.8		
4129	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-008	<none></none>	<none></none>	<none></none>		
4130		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-008	<none></none>	<none></none>	<none></none>		
4131	·	H.sapiens gene for RNA pol II largest subunit, exons 20-22	1.1	1182038	(Z69368) unknown [Schizosaccharom yces pombe]	0.86		
4132		Human fibrinogen beta chain gene, complete mRNA. > gb 147706 147706 Sequence 3 from patent US 5639940	0.23	<none></none>	<none></none>	<none></none>		

		Nearest Neighbor		Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEO		lastN vs. Genbank)	I A TOTAL TOTAL	· · · · · · · · · · · · · · · · · · ·			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
4133	D12646	Mouse kif4 mRNA for microtubule- based motor protein KIF4, complete cds	6e-057	1170659	KINESIN-LIKE PROTEIN KIF4 musculus]	2e-022	
4134	D86957	Human mRNA for KIAA0202 gene, partial cds	1.1	<none></none>	<none></none>	<none></none>	
4135	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7e-006	<none></none>	<none></none>	<none></none>	
4136	M20902	Human apolipoprotein C- I (VLDL) gene, complete cds.	4e-008	<none></none>	<none></none>	<none></none>	
4137	L36849	Cloning vector pZEO (isolate SV1) phleomycin/zeoci n-binding protein gene, complete cds.	9e-040	987050	(X65335) lacZ gene product [unidentified cloning vector]	9e-007	
4138	X80910	H.sapiens PPP1CB mRNA	0	<none></none>	<none></none>	<none></none>	
4139	M77812	Rabbit myosin heavy chain mRNA, complete cds.	0.0002	2088793	(AF003150) similar to cuticular collagen [Caenorhabditis elegans]	0.23	
4140		Human recombination 'hot spot' region associated with the CMT1A duplication and the HNPP deletion containing a mariner transposon-like element	0.13	<none></none>	<none></none>	<none></none>	
4141		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0006	<none></none>	<none></none>	<none></none>	

		Name of N. 11				
		Nearest Neighbor			Nearest Neighbor	
SEQ	ACCESSION	BlastN vs. Genbank		(BlastX	vs. Non-Redundant l	Proteins)
ID			P VALUE	ACCESSION	DESCRIPTION	P VALUE
4142	AC001502	Homo sapiens (subclone 2 c7 from P1 H43) DNA sequence	0.014	3164130	(D78600) cytochrome P450 monooxygenase	7.5
4143	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>
4144	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4145	L31760	Human STS UT8178.	0.17	<none></none>	<none></none>	<none></none>
4146	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-013	<none></none>	<none></none>	<none></none>
4147	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0006	2662587	(AF036696) contains similarity to Brassica oleracea non-green plastid phosphate/triose- phosphate translocator precursor (GB:U13632) [Caenorhabditis elegans]	2e-016
4148		Human DSC2 mRNA for desmocollins type 2a and 2b	6e-037	319943	desmocollin 3b precursor - human	7e-014
4149		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-012	<none></none>	<none></none>	<none></none>
4150	]	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-005		(AF045640) contains similarity to ion channel proteins	3.4

	N	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
ID								
4151	U95102	Xenopus laevis	3e-010	2507153	VACUOLAR	0.011		
	i	mitotic			PROTEIN			
		phosphoprotein			SORTING-			
		90 mRNA,			ASSOCIATED			
	,	complete cds			PROTEIN VPS16			
		,			>gi 2133204 pir  S	j		
					62031 vacuolar			
				•	protein sorting-			
					associated protein			
					VPS16 - yeast			
					(Saccharomyces			
					cerevisiae)			
1					>gi 1171414			
					(U44030) Vsp16p:			
					Vacuolar sorting			
					protein			
					[Saccharomyces			
					cerevisiae]			
4152	D12646	Mouse kif4	2e-035	3877579	(Z82271)	2e-054		
		mRNA for			Similarity to			
		microtubule-			Mouse kinensin-			
		based motor			like protein KIF4			
1		protein KIF4,			(SW:P33174);			
1		complete cds			cDNA EST EMBL:D27320			
					comes from this			
					gene; cDNA EST EMBL:D27322			
					comes from this			
					gene; cDNA EST			
	,				EMBL:D27321			
	:				comes from this			
					gene; cDNA EST			
				-	EMBL:D35764			
					comes Mouse			
			į		kinensin-like			
					protein			

	Nearest Neighbor			Nearest Neighbor			
655	(	BlastN vs. Genbank	<b>(</b> )	(BlastX	vs. Non-Redundant I	Proteinal	
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID 4152					2200Kii HON	I VALUE	
4153	D12646	Mouse kif4	2e-035	3877579	(Z82271)	2e-054	
		mRNA for	1		Similarity to	20-034	
		microtubule-	ļ		Mouse kinensin-		
		based motor			like protein KIF4		
		protein KIF4,			(SW:P33174);		
		complete cds	]		cDNA EST		
			1 1		EMBL:D27320		
			]		comes from this		
			!		gene; cDNA EST		
1 1					EMBL:D27322		
					comes from this		
1 1			1 1		gene; cDNA EST		
1 1			1 1		EMBL:D27321		
					comes from this		
					gene; cDNA EST		
					EMBL:D35764		
			1	•	comes Mouse		
					kinensin-like		
4154	D12646	Mouse kif4	1 2 22 1	0.000	protein		
1 1	_ 120 10	mRNA for	2e-035	3877579	(Z82271)	9e-058	
		microtubule-			Similarity to		
		based motor			Mouse kinensin-		
		protein KIF4,			like protein KIF4		
		complete cds			(SW:P33174);		
Í					cDNA EST		
]		·			EMBL:D27320		
					comes from this	ł	
- 1					gene; cDNA EST EMBL:D27322		
ĺ					comes from this		
			ł	t t	gene; cDNA EST		
			i		EMBL:D27321		
	[		[	I	comes from this		
			ĺ		gene; cDNA EST		
	j				EMBL:D35764		
1	]		į.		comes kinensin-	ļ	
4155	740000				ike protein KIF4		
4155		Human SK2 c-	0.13		66 KD PROTEIN	10	
1		Ha-ras-1			gi 77357 pir  JQ0	10	
		oncogene-		1	07 hypothetical		
1		encoded protein			66K protein -		
		gene, exon 1.			Ononis yellow	1.	
					nosaic virus	1	

	1	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4156	L05096	Homo sapiens ribosomal protein L39 mRNA, complete cds	2e-086	1173044	60S RIBOSOMAL PROTEIN L39 norvegicus] >gi 1373419 (U57846) ribosomal protein L39 ribosomal protein L39 [Homo sapiens]	3e-007	
4157	D13749	Plasmid pKA1 DNA	2e-025	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.18	
4158	AF007157	Homo sapiens clone 23856 unknown mRNA, partial cds	2e-057	2131036	(Z95890) PE_PGRS [Mycobacterium tuberculosis]	6.3	
4159	AF031400	Poecilia orri NADH dehydrogenase subunit 2 gene, mitochondrial gene encoding mitochondrial protein, complete cds	1.2	3327168	(AB014577) KIAA0677 protein [Homo sapiens]	0.0008	
4160	U58468	Human vasoactive intestinal peptide gene, 5' flanking sequence from - 5172 to -1924	3e-009	<none></none>	<none></none>	<none></none>	
4161	D11078	Homo sapiens RGH2 gene, retrovirus-like element	4e-032	2119507	alpha-1C- adrenergic receptor isoform 2 - human >gi 927209 gnl PI D d1007476 (D32202) alpha 1C adrenergic receptor isoform 2 [Homo sapiens]	1.2	
4162	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4163	M31061	Human ornithine decarboxylase gene, complete cds.	2e-023		!!!! ALU SUBFAMILY J WARNING ENTRY	0.002	

		Nearest Neighbor (BlastN vs. Genbank)		Nearest Neighbor			
SEQ	ACCESSIO	N DESCRIPTION	P VALUE	(BlastX	vs. Non-Redundant		
ID		Deckii Hon	FVALUE	ACCESSIO	N DESCRIPTION	PVALL	
4164	M19980	M.fervidus gap gene encoding glyceraldehyde-3- phosphate dehydrogenase, complete cds.	0.4	1825606	(U88169) similar to molybdoterin biosynthesis MOEB proteins [Caenorhabditis elegans]	3e-057	
4165	D17036	Human HepG2 partial cDNA, clone hmd3e08m5	5e-025	<none></none>	<none></none>	<none< td=""></none<>	
4167	L14714	C. elegans cosmid ZC97.	0.39	3874412	(Z70034) similarity to 35.1KD hypothetical yeast protein (Swiss Pro- accession number P38805); cDNA EST CEMSE65F comes from this gene; cDNA EST EMBL:T01315 comes from this gene; cDNA EST yk452e10.3 comes from this gene; cDNA 35.1KD hypothetical yeast p	1e-033	
	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-008	<none></none>	<none></none>	<none></none>	
4168	Z49867	Caenorhabditis elegans cosmid C33D3, complete sequence [Caenorhabditis elegans]	0.044	3876784	(Z81530) predicted using Genefinder	5.9	
4169	U95102	mitotic phosphoprotein 90 mRNA, complete cds	9e-010	3549676	(AL031394) putative protein	3.1	
1170		Human (lambda) DNA for immunoglobulin light chain	0.36		(AB013170) NADH dehydrogenase subunit 5	2.4	

		Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4171	M37191	Human ras inhibitor mRNA, partial cds.	e-122	107561	Ras inhibitor (clone JC310) - human sapiens]	3e-035	
4172	AB018374	Mus musculus GARP34 mRNA, complete cds	2e-046	3724364	(AB018374) GARP34 [Mus musculus]	2e-008	
4173	X62527	R.norvegicus gene for CNS- myelin proteolipid protein (exon 6)	1.2	1155068	(X94976) cell wall-plasma membrane linker protein	1.6	
4174	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-008	2781355	(AC003113) F24O1.11 [Arabidopsis thaliana]	0.52	
4175	AF002715	Homo sapiens MAP kinase kinase kinase (MTK1) mRNA, complete cds	e-168	2352277	(AF002715) MAP kinase kinase kinase [Homo sapiens]	1e-042	
4176	U07807	Human metallothionein IV (MTIV) gene, complete cds.	0.047	<none></none>	<none></none>	<none></none>	
4177	D11129	Pneumonia virus of mice gene 7	0.14	<none></none>	<none></none>	<none></none>	
4178	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>	
4179	AF070557	Homo sapiens clone 24422 mRNA sequence	0	<none></none>	<none></none>	<none></none>	
4180	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.005	<none></none>	<none></none>	<none></none>	
4181	AF045765	Homo sapiens G protein-coupled receptor	9e-018	728833	!!!! ALU SUBFAMILY SB1 WARNING ENTRY	0.051	
4182	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4183	X62162	B.burgdorferi gene for pC protein	0.41	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		Nearest Neighbor			
SEQ	(E	BlastN vs. Genbank	•		vs. Non-Redundant	Proteins)	
ID	ACCESSION		P VALUE	ACCESSION	DESCRIPTION	PVALUE	
4184	Z81315	Human DNA sequence from fosmid F62D4 on chromosome 22q12-qter > :: emb Z81316 HSF 62D4A Human DNA sequence from fosmid F62D4 on chromosome 22, complete sequence		<none></none>	<none></none>	<none></none>	
4185	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>	
	L08108	Human low- affinity Fc- receptor IIB gene, exons 4-7.	0.0006	462387	IMMEDIATE- EARLY PROTEIN IE180 herpesvirus 1 (strain Kaplan) >gi 334071 (M34651) immediate-early protein [Pseudorabies virus]	0.25	
4187	AJ228330	Pinus pinaster reverse transcriptase gene of Line- retroelement (clone pPpLi1)	1.3	3108187	(AC004663) Notch 3 [Homo sapiens]	1.3	
4188	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4189		Homo sapiens MutS homolog 5 (MSH5) gene, exons 13 through 25 and complete cds	0.002	3986756	(AF109905) NG23 [Mus musculus]	0.066	
4190		H.sapiens CpG DNA, clone 165g8, reverse read cpg165g8.rt1a.	2e-014	1055183	(U40061) Similar to sodium- dependent phosphate transporter. [Caenorhabditis elegans]	2.4	

	1	Nearest Neighbor	· · · · · · · · · · · · · · · · · · ·	Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID							
4191	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
4192	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
4193	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	2128837	hypothetical protein MJ1401 - Methanococcus jannaschii >gi 1592049 (U67580) putative ATP dependent RNA helicase [Methanococcus jannaschii]	7.6	
4194	X99691	B.taurus DNA for agouti gene	9e-009	<none></none>	<none></none>	<none></none>	
4195	U95098	Xenopus laevis mitotic <sup>1</sup> phosphoprotein 44 mRNA, partial cds	8e-008	306929	(M28696) IgG Fc receptor beta-Fc- gamma-RII [Homo sapiens]	0.64	
4196	U37521	Sus scrofa E- selectin gene, complete cds	0.042	539800	calcium-activated potassium channel mSlo - mouse >gi 347144 (L16912) mSlo [Mus musculus]	3.3	
4197		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.0002	<none></none>	<none></none>	<none></none>	
4198		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.0002	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor			Nearest Neighbor			
SEQ		lastN vs. Genbank)		(BlastX v	s. Non-Redundant I	Proteins)		
ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4199		Hemagglutinin gene of influenza virus strain A/duck/Ukraine/1/63 > :: gb J02109 FLAH AMU Influenza A/duck/ukraine/1/63 (h3n8), hemagglutinin (seg 4), cdna.	0.18	4038537	(AL021106) 1- evidence=predicte d by match; 1- match_accession= AA392988; 1- match_description =LD12167.5prime LD Drosophila melanogaster embryo BlueScript Drosophila melanogaster cDNA clone LD12167 5prime.; 1- match_species=Dr osop			
4200	X83107	H.sapiens Bmx mRNA for cytoplasmic tyrosine kinase	0.38	1147597	(U31221) viscerotropic leishmaniasis antigen [Leishmania tropica]	3.3		
4201	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-014	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	1.9		
4202	X71642	M.musculus GEG-154 mRNA	3.5	2760302	(D89074) hypothetical protein [Vibrio cholerae O139 fs1 phage]	1.5		
4203		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-013	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.7		
4204		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-009		(U19728) organic anion transporter [Raja erinacea]	5.8		
4205		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012	<none></none>	<none></none>	<none></none>		

	]	Nearest Neighbor		Nearcst Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE	
4206	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds		<none></none>	<none></none>	<none></none>	
4207	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-007	<none></none>	<none></none>	<none></none>	
4208	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-011	<none></none>	<none></none>	<none></none>	
4209	U50523	Human BRCA2 region, mRNA sequence CG037	0	3121764	ARP2/3 COMPLEX 34 KD SUBUNIT	9e-026	
4210	X80909	H.sapiens alpha NAC mRNA	8e-050	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.9	
4211	AF039955	Homo sapiens liver CC chemokine-1 precursor	7e-006	<none></none>	<none></none>	<none></none>	
4212	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	4.6	
4213	L35670	Homo sapiens (subclone H8 10_g5 from P1 35 H5 C8) DNA sequence.	7e-017	<none></none>	<none></none>	<none></none>	
4214		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
4215	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4216	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4217		Lobostemon fruticosus Buek chloroplast trnL(UAA)- trnF(GAA) intergenic spacer DNA.	0.35	1483615	(Z77856) beta- glucosidase [Thermotoga neapolitana]	9	
			460		<u></u>		

	1	Nearest Neighbor	·	<u> </u>	Nearest Neighbor	·
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)		
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
ID			- VIIEGE	ACCEDSION	DESCRIPTION	VALUE
4218	Z12112	pWE15A cosmid	5e-033	987050	(X65335) lacZ	4e-008
		vector DNA			gene product	
					[unidentified	
1010	7// 50 70				cloning vector]	
4219	X65279	pWE15 cosmid	2e-079	987050	(X65335) lacZ	3e-015
		vector DNA			gene product	
		i			[unidentified	
4220	AF052165	Home sonie	170	2066153	cloning vector]	
4220	AF032103	Homo sapiens clone 24522	e-170	2065177	(Y12790) Supt5h	1e-059
		mRNA sequence			protein [Homo	
4221	U95102	Xenopus laevis	2e-006	ALONES	sapiens] sapiens]	310315
4221	093102	mitotic	2e-006	<none></none>	<none></none>	<none></none>
		phosphoprotein				
		90 mRNA,				
		complete cds				
4222	U95102	Xenopus laevis	2e-014	2072296	(U95098) mitotic	1.9
		mitotic		20,22,0	phosphoprotein 44	1.7
		phosphoprotein			[Xenopus laevis]	
		90 mRNA,				
		complete cds				
4223	AF055024	Homo sapiens	0	<none></none>	<none></none>	<none></none>
		clone 24763				
1001		mRNA sequence				
4224	S39048	knob associated	0.39	<none></none>	<none></none>	<none></none>
		histidine-rich	į			
4225	U95102	protein KAHRP				
4223	093102	Xenopus laevis	4e-011	<none></none>	<none></none>	<none></none>
		phosphoprotein				·
		90 mRNA,				
		complete cds				
4226		Human tyrosine	2e-028	1709347	SERINE/THREO	8e-008
	L L	kinase TXK (txk)	20-020	110754/	NINE-PROTEIN	0C-UU8
		gene, exon 13.			KINASE NRK2	
			1		(SERINE/THREO	
-			ł		NINE KINASE 2)	
					>gi 348245	
					(L20321) protein	į
			į		serine/threonine	
		İ			kinase [Homo	į
					sapiens]	

		Nearest Neighbor			Nearest Neighbor			
CE 2		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4227	U25748	Pan troglodytes epididymal secretory protein precursor (EPI-1) mRNA, complete cds.	0	3182993	EPIDIDYMAL SECRETORY PROTEIN E1 PRECURSOR (EPI-1) (HE1) (EPIDIDYMAL SECRETORY PROTEIN 14.6) (ESP14.6) >gi 106343 pir  S2 5641 hypothetical protein - human >gi 2134519 pir  I5 3929 epididymal secretory protein 14.6 - crab-eating macaque human >gi 37477 (X676	7e-040		
4228	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4229	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.017	<none></none>	<none></none>	<none></none>		
4230	X74929	H.sapiens KRT8 mRNA for keratin 8	6e-036	<none></none>	<none></none>	<none></none>		
4231	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-007	<none></none>	<none></none>	<none></none>		
4232	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-013	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	6		
4233	U41010	Caenorhabditis elegans cosmid T05A12	4.2	<none></none>	<none></none>	<none></none>		
4234	Ú95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-007	1363925	hypothetical protein 2 - North American opossum (fragment) >gi 897721 (Z48955) ORF-2, putative RT [Didelphis	4.7		

		Nearest Neighbor			Nearest Neighbor			
OF C	(E	BlastN vs. Genbank	<u>-                                      </u>	(BlastX v	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE		
					virginiana]			
4235	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0002	439493	(D26086) zinc- finger protein [Petunia x hybrida]	8.5		
4236	Ü95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0002	2501599	HYPOTHETICAL 29.1 KD PROTEIN W06E11.4 IN CHROMOSOME III >gi 669022 (U20862) W06E11.4 gene product [Caenorhabditis elegans]	0.002		
4237	X94118	P.falciparum PK4 gene	1.2	<none></none>	<none></none>	<none></none>		
4238	Z18944	S.cerevisiae BDF1 gene	7.30E-01	2119161	unknown - chicken (fragment) >gi 537433	0.61		
4239		Mus musculus RalBP1- associated EH domain protein Reps1 (reps1) mRNA, complete cds	e-154	2677843	(AF031939) RalBP1-associated EH domain protein Reps1	5e-016		
4240		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	le-014		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.9		
4241		Gallus gallus homeobox protein (LH-2) mRNA, complete cds.	3e-044	[:	HOMEOBOX PROTEIN LH-2 >gi 508712	4e-021		
4242		H.sapiens Fanconi anaemia group A gene, exon 29	3.00E-07	<none></none>	<none></none>	<none></none>		

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4243	U63810	Homo sapiens WD40 protein Ciao 1 mRNA, complete cds	0.00E+00	3219331	(AC004020) Unknown gene product [Homo sapiens]	1e-096	
4244	U15110	Mycoplasma capricolum ptsI- crr operon phosphocarrier protein enzyme I (ptsI) and phosphocarrier protein enzyme IIA (crr) genes, complete cds, and lipopolysaccharid e biosynthesis (kdtB) gene, complete cds.	1.1	<none></none>	<none></none>	<none></none>	
4245	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4246	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-011	730888	OCTAPEPTIDE- REPEAT PROTEIN T2	1.4	
4247	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.074	<none></none>	<none></none>	<none></none>	
4248	AJ224152	Plasmodium berghei gene encoding cdc2- related kinase 2	0.54	<none></none>	<none></none>	<none></none>	
4249	M24971	D.discoideum CT-rich satellite rDNA, clone pCT11.	2e-008		EBNA-1 NUCLEAR PROTEIN herpesvirus 4 (strain B95-8) >gi 1334880 (V01555) BKRF1 encodes EBNA-1 protein, latent cycle gene. [Human herpesvirus 4]	2e-009	
4250		S.cerevisiae chromosome VII reading frame ORF YGR184c	1.2	<none></none>	<none></none>	<none></none>	
			172				

		Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE		
4251	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4252	AJ224326	Homo sapiens mRNA for putative ribulose- 5-phosphate- epimerase, partial cds	0	<none></none>	<none></none>	<none></none>		
4253	U45245	Homo sapiens paired-box protein PAX2 (PAX2) gene, promoter and exon 1	2.1	<none></none>	<none></none>	<none></none>		
4254	AE001157	Borrelia burgdorferi (section 43 of 70) of the complete genome	0.63	<none></none>	<none></none>	<none></none>		
4255	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.8		
4256	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.0005	2773162	(AF039595) sulfonylurea receptor 1B [Rattus norvegicus]	9.6		
4257	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5e-009	<none></none>	<none></none>	<none></none>		
4258		Influenza A/gull/MD/19/77 (H2N8) hemagglutinin	0.67	<none></none>	<none></none>	<none></none>		
4259		Homo sapiens mRNA for KIAA0727 protein, partial cds	0	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3		
4260		Methanococcus jannaschii section 36 of 150 of the complete genome	0.014	<none></none>	<none></none>	<none></none>		

	<u> </u>	Nearest Neighbor	· · · · · · · · · · · · · · · · · · ·	Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4261	L09209	Homo sapiens amyloid protein homologue mRNA, complete cds > :: gb I13782 I13782 Sequence 12 from patent US 5441931 > :: gb I68752 I68752 Sequence 12 from patent US 5677146		<none></none>	<none></none>	<none></none>	
4262	M27866	Human retinoblastoma susceptibility protein gene, exon 27. > :: gb I09392  Sequence 25 from Patent WO 8906703	e-158	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	1.7	
4263	U59629	Human transcription factor LZIP-alpha mRNA, complete cds	1e-052	2828799	(U55386) unknown [Anabaena PCC7120]	0.097	
4264	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-006	3176395	(AB015041) PIF1 [Caenorhabditis elegans]	3e-005	
4265	AF069250	Homo sapiens okadaic acid-inducible phosphoprotein (OA48-18) mRNA, complete cds	2e-068	3037018	(AF041330) NADH dehydrogenase subunit 5 [Bodo saltans]	0.002	
4266	M11560	Human aldolase A mRNA, complete cds.	0.00E+00	113606	FRUCTOSE- BISPHOSPHATE ALDOLASE A fructose- bisphosphate aldolase (EC 4.1.2.13) A - human sapiens]	5e-055	

		Nearest Neighbor	<u> </u>	1	Nearest Neighbor		
		lastN vs. Genbank)	)	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
4267	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-009	<none></none>	<none></none>	<none></none>	
4268	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-005	2688708	(AE001176) conserved hypothetical protein [Borrelia burgdorferi]	8.5	
4269	L35566	Gallus gallus homeobox protein (LH-2) mRNA, complete cds.	6e-041	1708809	HOMEOBOX PROTEIN LH-2 >gi 508712	7e-019	
4270	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1.00E-11	1709997	DNA REPAIR PROTEIN RAD18 >gi 1150622 protein rad18 [Schizosaccharom yces pombe]	6e-027	
4271	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-009	586442	NUCLEOPORIN NUP170 (NUCLEAR PORE PROTEIN NUP170) >gi 626192 pir  S4 5429 probable membrane protein YBL079w - yeast (Saccharomyces cerevisiae) cerevisiae] >gi 536127 (Z35840) ORF YBL079w	0.44	
4272		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-013	<none></none>	<none></none>	<none></none>	
4273	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4274	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
650		lastN vs. Genbank)	I P VALUE		DESCRIPTION		
SEQ ID	ACCESSION	DESCRIPTION				P VALUE	
4275	X00334	Drosophila virilis simple DNA sequence (pDv- 19)	6e-010	119110	EBNA-1 NUCLEAR PROTEIN herpesvirus 4 (strain B95-8) >gi 1334880 (V01555) BKRF1 encodes EBNA-1 protein, latent cycle gene. [Human herpesvirus 4]	2e-016	
4276	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-007	<none></none>	<none></none>	<none></none>	
4277	AF069250	Homo sapiens okadaic acid- inducible phosphoprotein (OA48-18) mRNA, complete cds	2e-068	3037018	(AF041330) NADH dehydrogenase subunit 5 [Bodo saltans]	0.002	
4278	Y10183	H.sapiens mRNA for MEMD protein	e-162	<none></none>	<none></none>	<none></none>	
4279	D86960	Human mRNA for KIAA0205 gene, complete cds	2e-078	<none></none>	<none></none>	<none></none>	
4280	X65319	Cloning vector pCAT-Enhancer	3e-081	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-015	
4281	X86693	H.sapiens mRNA for hevin like protein	0.18	<none></none>	<none></none>	<none></none>	
4282	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0001	<none></none>	<none></none>	<none></none>	
4283	M33156	A.aegypti D7 gene, exons 1-5.	1.30E+00	<none></none>	<none></none>	<none></none>	
4284	I	Human mRNA for Cu/Zn superoxide dismutase (SOD)	0	1	(D90358) HB- SOD [Schizosaccharom yces pombe]	7e-032	

		Nearest Neighbor		T	Nearest Neighbor	<del></del>
	(B	lastN vs. Genbank)		(BlastX	vs. Non-Redundant	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE
4285	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds		<none></none>	<none></none>	<none></none>
4286	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-04	<none></none>	<none></none>	<none></none>
4287	X02317	Human mRNA for Cu/Zn superoxide dismutase (SOD)	0	134611	SUPEROXIDE DISMUTASE (CU-ZN) dismutase (aa 1- 154) [Homo sapiens] >gi 338276 (K00065) superoxide dismutase [Homo sapiens] >gi 1237407 (L44139) Cu/Zn- superoxide dismutase [Homo sapiens]	2e-079
4288		Human mRNA for coupling protein G(s) alpha subunit adenylyl cyclase)	0	386748	(M14631) guanine nucleotide-binding protein alpha subunit	2e-073
4289		Rabbit MHC class II RLA-DR- alpha gene, complete cds.	2.4	<none></none>	<none></none>	<none></none>
4290		Human Down Syndrome region of chromosome 21, genomic sequence, clone A12H1-1F8.	0.37	<none></none>	<none></none>	<none></none>
4291	1   1   1	Mus musculus neural plakophilin related arm- repeat protein (NPRAP) mRNA, complete cds	0.15		SUPPRESSOR OF SABLE PROTEIN fruit fly (Drosophila melanogaster) >gi 158517 (M57889) su(s) protein	5.2

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)	ı	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID					[Drosophila melanogaster]		
4292	AF045531	Homo sapiens germline chromosome 22, 22q11.2 region	0.005	<none></none>	<none></none>	<none></none>	
4293	D86960	Human mRNA for KIAA0205 gene, complete cds	2e-078	<none></none>	<none></none>	<none></none>	
4294	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>	
4295	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	5.00E-03	<none></none>	<none></none>	<none></none>	
4296	U17073	Neurospora crassa frequency (frq) mRNA, complete cds.	0.041	3152938	(AF065482) sorting nexin 2 [Homo sapiens]	0.83	
4297	M93051	Pisum sativum ascorbate peroxidase (ApxI) gene, complete cds.	0.2	<none></none>	<none></none>	<none></none>	
4298	U28153	Caenorhabditis elegans UNC-76 (unc-76) gene, complete cds.	0.37	<none></none>	<none></none>	<none></none>	
4299		Caenorhabditis elegans UNC-76 (unc-76) gene, complete cds.	0.37	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		T	Nearest Neighbor	·	
	(E	BlastN vs. Genbank	<u>(</u> )	(BlastX	(BlastX vs. Non-Redundant Proteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4300	U20240	Human C/EBP gamma mRNA, complete cds > :: gb G28590 G285 90 human STS SHGC-35371.		1705750	CCAAT/ENHAN CER BINDING PROTEIN GAMMA (C/EBP GAMMA) >gi 1363931 pir  J C4243 transcription CCAAT enhancer binding protein- gamma - human >gi 727294 (U20240) C/EBP gamma [Homo sapiens]		
4301	Y16359	Calonectris diomedea random amplified polymorphic DNA, clone Cd- O8f1	4e-075	595780	(U13871) lacZ alpha peptide [Cloning vector]	0.0001	
4302	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-013	<none></none>	<none></none>	<none></none>	
4303	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4304		Mus musculus neural plakophilin related arm- repeat protein (NPRAP) mRNA, complete cds	0.15		SUPPRESSOR OF SABLE PROTEIN fruit fly (Drosophila melanogaster) >gi 158517 (M57889) su(s) protein [Drosophila melanogaster]	5.2	
4306		Human mRNA	<none></none>	<none></none>	<none></none>	<none></none>	
		for KIAA0205 gene, complete cds	0		(D90917) UDP-N- acetylglucosamine -N- acetylmuramyl- (pentape ptide) pyrophosphoryl - undecaprenol N- acetylglucosamine cransferase [Synechocystis sp.]	4.40E+00	

	7	Nearest Neighbor	·	Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4307	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-013	4105520	(AF046933) carboxysome structural polypeptide	2.4	
4308	Y14723	Choanomphalus incertus mitochondrial cytochrome c oxidase subunit I gene, partial	0.36	<none></none>	<none></none>	<none></none>	
4309	AB018327	Homo sapiens mRNA for KIAA0784 protein, partial cds	0	3882289	(AB018327) KIAA0784 protein [Homo sapiens]	4e-041	
4310	AB007860	Homo sapiens KIAA0400 mRNA, complete cds	0	<none></none>	<none></none>	<none></none>	
4311	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4312	U96440	Drosophila melanogaster cut gene, partial sequence	0.053	119110	EBNA-1 NUCLEAR PROTEIN herpesvirus 4 (strain B95-8) >gi 1334880 (V01555) BKRF1 encodes EBNA-1 protein, latent cycle gene. [Human herpesvirus 4]	0.0004	
4313	X64707	H.sapiens BBC1 mRNA	3e-090	1350662	60S RIBOSOMAL PROTEIN L13 (A52)	2e-025	
4314	U67522	Methanococcus jannaschii section 64 of 150 of the complete genome	0.38	<none></none>	<none></none>	<none></none>	
4315	M11560	Human aldolase A mRNA, complete cds.	0.00E+00		FRUCTOSE- BISPHOSPHATE ALDOLASE A fructose- bisphosphate aldolase (EC 4.1.2.13) A - human sapiens]	5e-055	

		Nearest Neighbor		Ţ	Nearest Neighbor	·
	(H	BlastN vs. Genbank	)	(BlastX v	s. Non-Redundant P	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
4316	X92098	H.sapiens mRNA for transmembrane protein rnp24	e-123	3914237	COP-COATED VESICLE MEMBRANE PROTEIN P24 PRECURSOR (P24A) (RNP24) >gi 1212965 gn  PI D e205529	le-017
4317	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4318	D86960	Human mRNA for KIAA0205 gene, complete cds	0	1653865	(D90917) UDP-N-acetylglucosamine -N-acetylmuramyl- (pentape ptide) pyrophosphoryl - undecaprenol N- acetylglucosamine transferase [Synechocystis sp.]	4.40E+00
4319	M83094	Homo sapiens cytosolic selenium- dependent glutathione peroxidase gene, complete cds, and rhoh12 gene, 3' end.	0.00E+00	<none></none>	<none></none>	<none></none>
4320	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5e-015	<none></none>	<none></none>	<none></none>
4321		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-007	<none></none>	<none></none>	<none></none>
4322		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	3.3	<none></none>	<none></none>	<none></none>
4323		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1.40E-02	<none></none>	<none></none>	<none></none>

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4324	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4325	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	<none></none>	<none></none>	<none></none>	
4326	AF088034	Homo sapiens full length insert cDNA clone ZC24F03	0	854598	(X87611) ORF YJR83.18 [Saccharomyces cerevisiae]	2e-024	
4327	U47322	Cloning vector DNA, complete sequence.	6.00E-06	<none></none>	<none></none>	<none>.</none>	
4328	U47322	Cloning vector DNA, complete sequence.	6.00E-06	<none></none>	<none></none>	<none></none>	
4329	D86960	Human mRNA for KIAA0205 gene, complete cds	0.00E+00	1653865	(D90917) UDP-N-acetylglucosamine -N-acetylmuramyl- (pentape ptide) pyrophosphoryl - undecaprenol N- acetylglucosamine transferase [Synechocystis sp.]	1.4	
4330	Z70316	D.melanogaster mRNA for tyramine-beta- hydroxylase	1.5	<none></none>	<none></none>	<none></none>	
4331	L28010	Homo sapiens HnRNP F protein mRNA, complete cds	3e-070		HETEROGENEO US NUCLEAR RIBONUCLEOPR OTEIN F (HNRNP F) >gi 631210 pir  S4 3484 hnRNP F protein - human >gi 452048 (L28010) HnRNP F protein [Homo sapiens]	2e-005	
4332		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	1.40E-01	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		Ţ	Nearest Neighbor	
050	(I	BlastN vs. Genbank)		(BlastX	vs. Non-Redundant	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE
4333	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.13	<none></none>	<none></none>	<none></none>
4334	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.004	1723286	VERY HYPOTHETICAL 11.9 KD PROTEIN C4H3.12C IN CHROMOSOME I >gi 1184025 (Z69380) unknown	3.1
4335	<none></none>	<none></none>	<none></none>	2314752	(AE000654) rare lipoprotein A (rlpA) [Helicobacter pylori]	7.3
4336	AB007963	Homo sapiens mRNA for KIAA0494 protein, complete cds	8e-078	3413938	(AB007963) KIAA0494 protein [Homo sapiens]	1.00E-11
4337	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4338	X12597	Human mRNA for high mobility group-1 protein	3e-048	123371	HIGH MOBILITY GROUP PROTEIN HMG1 protein HMG-1 - pig >gi 164490 (M21683) non- histone protein HMG1 [Sus scrofa]	0.006
4339		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	le-013	2853095	(AL021767) very hypothetical protein	0.043
4340		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-007	<none></none>	<none></none>	<none></none>
4341	]	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7e-006		(AC003981) F22O13.15 [Arabidopsis thaliana]	4.5

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)	ı	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4342	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4.00E-11	231629	BILE-SALT- ACTIVATED LIPASE PRECURSOR ESTER LIPASE) (STEROL ESTERASE) (CHOLESTEROL ESTERASE) salt- activated lipase [Homo sapiens] sapiens]	9.6	
4343	L31732	Human STS UT643, 5' primer bind.	1.6	<none></none>	<none></none>	<none></none>	
4344	AF037332	Homo sapiens Eph-like receptor tyrosine kinase hEphB1b (EphB1) mRNA, complete cds	0.66	<none></none>	<none></none>	<none></none>	
4345	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4346	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2.00E-05	<none></none>	<none></none>	<none></none>	
4347	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-007	<none></none>	<none></none>	<none></none>	
4348	Z30961	H.sapiens DNA for Mhc Alu elements	7.00E-17	728835	!!!! ALU SUBFAMILY SC WARNING ENTRY	0.5	
4349	U34887	Yeast integrating vector pRS306 containing a fragment of lacZ.	7e-068	3152967	(Y14016) hypothetical protein	9	
4350	D28124	Human mRNA for unknown product, complete cds	0	1825638	(U88172) similar to protein-tyrosine phosphatase	0.062	
4351	AF069503	Carcharhinus plumbeus microsatellite repeat region	4.20E+00	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		Nearest Neighbor			
		BlastN vs. Genbank	1	(BlactY	(BlastX vs. Non-Redundant Proteins)		
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION		
ID		- Description	1 VALUE	ACCESSION	DESCRIPTION	P VALUE	
4352	AF069503	Carcharhinus	4.20E+00	<none></none>	<none></none>	AIONE	
		plumbeus	1.20L100	NONE	NONE>	<none></none>	
		microsatellite		l			
İ		repeat region		ľ			
4353	D10848	Alkalophilic	0.033	<none></none>	410)175		
	]	Bacillus sp.	0.033	<none></none>	<none></none>	<none></none>	
		genomic DNA for	.				
İ	1	lipo-penicillinase				1	
4354	D28124	Human mRNA	0	1005600	(7)00170		
	220124	for unknown		1825638	(U88172) similar	0.062	
					to protein-tyrosine		
		product, complete			phosphatase		
4355	U19482	Mus musculus	2 705 100	316315			
1.555	017402	C10-like	3.70E+00	<none></none>	<none></none>	<none></none>	
<b>i</b> i		chemokine			<u>,</u>		
	,	mRNA, complete				1	
4356	AF050068						
1,330	A1 030008	Homo sapiens growth arrest	1.4	1916844	(U82987) Bcl-2	0.042	
		_			binding		
		specific 11			component 3		
4357	U95094	Vonanus la suis	2 005		[Homo sapiens]		
1337	093094	Xenopus laevis XL-INCENP	2e-005	<none></none>	<none></none>	<none></none>	
-		(XL-INCENP)				] ]	
1 1	İ	mRNA, complete cds					
4358	AE000026						
1336	AL000020	Mycoplasma pneumoniae	1.3	<none></none>	<none></none>	<none></none>	
		• ,	Ì				
]		section 26 of 63	1				
		of the complete	i				
4359		genome					
5007	<none></none>	<none></none>	<none></none>	2114321	(D88733)	8.00E-01	
					membrane	1	
f l	İ				glycoprotein	ļ	
	ł				[Equine	1	
4360	<none></none>	Alones	- 1/01/-		herpesvirus 1]		
7500	NOINE	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4361	Y07660	M.tuberculosis accBC gene	2e-068	465847	HYPOTHETICAL 66.5 KD PROTEIN F02A9.5 IN CHROMOSOME III >gi 280542 pir  S2 8313 hypothetical protein F02A9.5 - Caenorhabditis elegans Genefinder; similar to Propionyl-CoA carboxylase beta chain; cDNA EST EMBL:M89018 comes from this gene; cDNA EST EMBL:D2806	4e-079		
4362	U12022	Human calmodulin (CALM1) gene, exons 2,3,4,5 and 6, and complete cds	e-127	<none></none>	<none></none>	<none></none>		
4363	AC001178	Homo sapiens (subclone 2_g12 from BAC H94) DNA sequence	3.00E-28	<none></none>	<none></none>	<none></none>		
4364	<none></none>	<none></none>	<none></none>		(AF068065) GP900; mucin-like glycoprotein [Cryptosporidium parvum]	0.52		
4365	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4366		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1.00E-12	<none></none>	<none></none>	<none></none>		
4367		Human GLA gene for alpha-D- galactosidase A (EC 3.2.1.22)	3	<none></none>	<none></none>	<none></none>		

	I	Nearest Neighbor		<del>T</del>	Manuact N. 11	<u> </u>	
	(1	BlastN vs. Genbank	)	Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	Proteins)	
ID	7105105					I. WEEL	
4368	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	5.00E-04	3873753	(Z66519) similar to phytoene synthase precursor; cDNA EST yk340f7.3 comes from this gene; cDNA EST yk340f7.5 comes from this gene [Caenorhabditis elegans]	2e-008	
4369	X04098	Human mRNA for cytoskeletal gamma-actin	0	<none></none>	<none></none>	<none></none>	
4370	M13452	Human lamin A mRNA, 3'end.	0	125962	LAMIN A (70 KD LAMIN)	3e-057	
4371	AF068863	Homo sapiens oligodendrocyte-specific protein	3.4	<none></none>	<none></none>	<none></none>	
4372	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	1.40E-01	<none></none>	<none></none>	<none></none>	
4373	L04636	Homo sapiens pre-mRNA splicing factor 2 p32 subunit (SF2p32) mRNA, complete cds.	0		COMPLEMENT COMPONENT 1, Q SUBCOMPONEN T BINDING PROTEIN PRECURSOR (GLYCOPROTEI N GC1QBP) (GC1Q-R PROTEIN) (HYALURONAN -BINDING PROTEIN 1) chain precursor - human >gi 338045 (L04636) splicing factor [Homo sapiens] >gi 472956 (X75913) gClq-R Homo sapiens]	2e-050	
4374	ľ	Human merosin mRNA, 3' end.	0.043	<none></none>	>gi <none></none>	<none></none>	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)	•	(BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
ID					1		
4375	<none></none>	<none></none>	<none></none>	188864	(M74027) mucin	0.042	
					[Homo sapiens]	1	
4376	X17206	Human mRNA	0	88570	ribosomal protein	6e-078	
		for LLRep3		i	S2 - human		
					(fragment)		
4377	X17206	I I DATA	0	99570	sapiens]	6.070	
43//	X1/206	Human mRNA for LLRep3	0	88570	ribosomal protein S2 - human	6e-078	
		101 LLKep3			(fragment)		
					[sapiens]		
4378	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4379	X98420	S.shibatae topR	1.10E+00	2746890	(AF040655) No	9.3	
		gene			definition line		
					found		
			<u> </u>		[Caenorhabditis		
42.00	3/00/00	6 1 2 -	1 100 30	0.714.000	elegans]		
4380	X98420	S.shibatae topR	1.10E+00	2746890	(AF040655) No	9.3	
		gene			definition line found		
					[Caenorhabditis		
					elegans]		
4381	X75787	P.falciparum	4	<none></none>	<none></none>	<none></none>	
		(FAF-2) mRNA				}	
		for aspartic					
10.00		hemoglobinase					
4382	AF044209	Homo sapiens	0	3510603	(AF044209)	4e-029	
		nuclear receptor co-repressor N-			nuclear receptor co-repressor N-		
		CoR mRNA,			CoR [Homo		
		complete cds			sapiens]		
4383	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4384	X64707	H.sapiens BBC1	e-110	1350662	60S	0.003	
		mRNA			RIBOSOMAL		
				ļ	PROTEIN L13		
1205	770016	<u> </u>			(A52)		
4385	Z70316	D.melanogaster	1.5	<none></none>	<none></none>	<none></none>	
		mRNA for tyramine-beta-					
	İ	hydroxylase					
4386	AF000371	Vitis vinifera	0.19	<none></none>	<none></none>	<none></none>	
		UDP	···/	110211	410112	110111	
		glucose:flavonoid	ļ		ŀ		
		3-0-	İ			]	
		glucosyltransferas				İ	
		e mRNA, partial				1	
		cds					

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		Nearest Neighbor	-	T	Nearest Neighbor	•		
		BlastN vs. Genbank)	)	(BlastX)	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4387		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-013	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	1.8		
4388	AE000688	Aquifex aeolicus section 20 of 109 of the complete genome	3.8	<none></none>	<none></none>	<none></none>		
4389	L05612	Dictyostelium purpureum DNA sequence, repeat region.	2.8	<none></none>	<none></none>	<none></none>		
4390	U33761	Human cyclin A/CDK2- associated p45 (Skp2) mRNA, complete cds	2e-079	2134952	cyclin A/CDK2- associated p45 - human sapiens]	le-025		
4391	U48288	Rattus norvegicus A-kinase anchoring protein AKAP 220 mRNA, complete cds	0.48	<none></none>	<none></none>	<none></none>		
4392	AB007963	Homo sapiens mRNA for KIAA0494 protein, complete cds	0.00E+00	3413938	(AB007963) KIAA0494 protein [Homo sapiens]	6e-071		
4393	<none></none>	<none></none>	<none></none>		EBNA-1 NUCLEAR PROTEIN herpesvirus 4 (strain B95-8) >gi 1334880 (V01555) BKRF1 encodes EBNA-1 protein, latent cycle gene. [Human herpesvirus 4]	6e-027		
4394		Ansonia muelleri CMNH H1476 16S rRNA gene, mitochondrial gene encoding mitochondrial rRNA, partial sequence	0.014	<none></none>	<none></none>	<none></none>		

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID		Bassian Horr	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	7100205101	2200	]	
4395	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4396	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4397	U38376	Rattus norvegicus cytosolic phospholipase A2 mRNA, complete cds	1.1	<none></none>	<none></none>	<none></none>	
4398	U78770	Mus musculus spasmolytic polypeptide (mSP) gene, complete cds	0.028	<none></none>	<none></none>	<none></none>	
4399	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.12	<none></none>	<none></none>	<none></none>	
4400	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-014	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.8	
4401	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.0003	<none></none>	<none></none>	<none></none>	
4402	X70288	H.sapiens gene for thioredoxin, exons 4 and 5	3e-030	<none></none>	<none></none>	<none></none>	
4403	X76683	Plasmid vector pHM2 betalactamase gene	7e-080	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-015	
4404	X69295	H.sapiens MSX2 mRNA for transcription factor	0.43	<none></none>	<none></none>	<none></none>	
4405	U20371	Mus musculus homeobox protein (Hoxall) gene, complete cds.	0.6	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor			Nearest Neighbor			
	(E	BlastN vs. Genbank)	)	(BlastX v	vs. Non-Redundant P	roteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4406		Rabbit mRNA for CD86, complete cds		135554	TETRACYCLINE RESISTANCE PROTEIN Bacillus cereus plasmid pBC16 >gi 72838 pir  YTS OG tetracycline resistance protein - Streptococcus agalactiae plasmid pMV158 >gi 80428 pir  JQ1 211 tetracycline resistance protein - Bacillus sp. plasmid pTB19 >gi 151696 (M63			
4407	AB007194	Oryza sativa mRNA for fructose-1,6- bisphosphatase (plastidic isoform), complete cds	3.5	<none></none>	<none></none>	<none></none>		
4408	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	1e-007	<none></none>	<none></none>	<none></none>		
4409	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4410	U28924 D30783	Pisum sativum cytosolic glutamine synthetase Homo sapiens	0.008	3769486	(AF074946) DNA polymerase [hemorrhagic enteritis virus]	1.3		
		mRNA for epiregulin, complete cds	0		HYPOTHETICAL 52.3 KD PROTEIN C56F8.06C IN CHROMOSOME I PRECURSOR >gi 1204228 (Z69728) unknown [Schizosaccharom yces pombe]	0.13		
4412	ĺ	Homo sapiens mRNA for NS1- binding protein	0	3851214	(AJ012449) NS1- binding protein [Homo sapiens]	4e-088		

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4413	X62357	H.sapiens Alu repeat (clones 2- 48)	1e-006	<none></none>	<none></none>	<none></none>	
4414	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6.00E-05	<none></none>	<none></none>	<none></none>	
4415	Z15015	D.pulex mitochondrion genes for NADH dehydrogenase subunit 2, cytochrome C oxidase subunit I, tRNA-Val, tRNA-Ile, tRNA-Gln, tRNA-fMet, tRNA-Trp, tRNA-Cys, tRNA-Tyr, small subunit rRNA, large subunit rRNA	2.2	1076802	extensin-like protein - maize >gi 600118	8e-027	
4416	D87942	Homo sapiens mRNA for alpha(1,2)fucosyl transferase, complete cds	2e-027	728838	!!!! ALU SUBFAMILY SX WARNING ENTRY	7.5	
4417	D86977	Human mRNA for KIAA0224 gene, complete cds	0		PUTATIVE PRE-MRNA SPLICING FACTOR ATP-DEPENDENT RNA HELICASE KIAA0224 (HA4657) putative ATP-dependent RNA helicase K03H1.2 of C.elegans(S41025) [Homo sapiens] >gi 3123906 (AF038391) pre-mRNA splicing factor [Homo sapiens]	2e-053	

		Nearest Neighbor			Nearest Neighbor	
050		lastN vs. Genbank			s. Non-Redundant P	roteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
4418	L28010	Homo sapiens HnRNP F protein mRNA, complete cds		1710628	HETEROGENEO US NUCLEAR RIBONUCLEOPR OTEIN F (HNRNP F) >gi 631210 pir  S4 3484 hnRNP F protein - human >gi 452048 (L28010) HnRNP F protein [Homo sapiens]	5e-045
4419	Ū95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>
4420	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>
4421	X14313	Arabidopsis CRB gene for 12S seed storage protein > gene, exons 1-4.	0.24	<none></none>	<none></none>	<none></none>
4422	X14313	Arabidopsis CRB gene for 12S seed storage protein > gene, exons 1-4.	0.24	<none></none>	<none></none>	<none></none>
4423		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>
4424		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	3.00E-08		(U42833) coded for by C. elegans cDNA CEESN37F; Similar to ammonium transport protein. [Caenorhabditis elegans]	1e-019
4425	1	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-05	<none></none>		<none></none>

	1	Nearest Neighbor	·		Nearest Neighbor		
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE				
ID						1	
4426	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	1125753	(U42833) coded for by C. elegans cDNA CEESN37F; Similar to ammonium transport protein. [Caenorhabditis elegans]	2e-008	
4427	AF053649	Homo sapiens cellular apoptosis susceptibility protein (CSE1) gene, exons 15 and 16	3e-008	<none></none>	<none></none>	<none></none>	
4428	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	1e-007	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	8.8	
4429	X94253	S.scrofa mRNA for heterogeneous nuclear ribonucleoprotein	6e-023	<none></none>	<none></none>	<none></none>	
4430	AF005039	Homo sapiens secretory carrier membrane protein	0	2232243	(AF005039) secretory carrier membrane protein [Homo sapiens]	8e-008	
4431	AF037332	Homo sapiens Eph-like receptor tyrosine kinase hEphB1b (EphB1) mRNA, complete cds	0.12	3861156	(AJ235272) unknown [Rickettsia prowazekii]	0.37	
4432	D28124	Human mRNA for unknown product, complete cds	7e-067	<none></none>	<none></none>	<none></none>	
4433	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-013	<none></none>	<none></none>	<none></none>	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4434	M93426	Human protein tyrosine phosphatase zetapolypeptide (PTPRZ) mRNA, complete cds. > :: gb G20044 G20044 sWSS1987 Eric D. Green Homo sapiens STS genomic, sequence tagged site [Homo sapiens]	0	400199	PROTEIN- TYROSINE PHOSPHATASE ZETA PRECURSOR (R- PTP-ZETA) >gi 476869 pir  A4 6151 protein- tyrosine- phosphatase (EC 3.1.3.48), receptor type zeta - human >gi 190744 (M93426) protein tyrosine phosphatase zeta- polypeptide [Homo sapiens]	4e-051	
4435	U54562	Human translation initiation factor eIF3 p48 subunit (Int-6) mRNA, complete cds	0	2498490	VIRAL INTEGRATION SITE PROTEIN INT-6 >gi 1854579 (L35556) Int-6 [Mus musculus] sapiens] >gi 2351382 (U54562) eIF3- p48 [Homo sapiens] sapiens]	e-110	
4436		Human translation initiation factor eIF3 p48 subunit (Int-6) mRNA, complete cds	0	2498490	VIRAL INTEGRATION SITE PROTEIN INT-6 >gi 1854579 (L35556) Int-6 [Mus musculus] sapiens] >gi 2351382 (U54562) eIF3- p48 [Homo sapiens] sapiens]	e-110	
4437		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.12	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)	,	(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4438	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-009	<none></none>	<none></none>	<none></none>		
4439	X03558	Human mRNA for elongation factor 1 alpha subunit	0	1169475	ELONGATION FACTOR 1- ALPHA 1	4e-083		
4440	J03607	Human 40-kDa keratin intermediate filament precursor gene.	0	1070608	keratin 19, type I, cytoskeletal - human sapiens]	4e-058		
4441	<none></none>	<none></none>	<none></none>	4063042	(AF068065) GP900; mucin-like glycoprotein [Cryptosporidium parvum]	0.011		
4442	<none></none>	<none></none>	<none></none>	4063042	(AF068065) GP900; mucin-like glycoprotein [Cryptosporidium parvum]	0.011		
4443	Y13401	Homo sapiens CD3 delta gene, enhancer sequence	8e-008	<none></none>	<none></none>	<none></none>		
4444	X04409	Human mRNA for coupling protein G(s) alpha-subunit (alpha-S1) (stimulatory regulatory component Gs of adenylyl cyclase)	0	71879	GTP-binding regulatory protein Gs alpha chain G- s-alpha-4 [Homo sapiens]	7e-092		
4445	AF038958	Homo sapiens synaptic glycoprotein SC2 spliced variant mRNA, complete cds	1e-072	3329386	(AF038958) synaptic glycoprotein SC2 spliced variant	6e-019		
4446		Human HepG2 3' region MboI cDNA, clone hmd4h04m3	1e-075	2500256	50S RIBOSOMAL PROTEIN L13 protein L13 [Streptomyces coelicolor]	0.043		

		Nearest Neighbor		<del></del>	Nonnort Nainth	
	(E	BlastN vs. Genbank)	<b>\</b>	(RlastX)	Nearest Neighbor vs. Non-Redundant P	rotoins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
4447	<none></none>	<none></none>	<none></none>	4063042	(AF068065) GP900; mucin-like glycoprotein [Cryptosporidium parvum]	0.005
4448	M24597	Beet curly top virus (clone pBCT028) DNA, complete genome.	4.1	<none></none>	<none></none>	<none></none>
4449	U59706	Gallus gallus alternatively spliced AMPA glutamate receptor, isoform GluR2 flop, (GluR2) mRNA, partial cds.	0.014	3283975	(AF072521) poly- (ADPribosyl)- transferase homolog PARP	0.02
4450	AJ010014	Homo sapiens mRNA for M96A protein	0	3342452	(AF072814) PHD finger DNA binding protein isoform 1	2e-029
4451	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4452	X06960	Aspergillus nidulans mitochondrial DNA for cytochrome oxidase subunit 3, tRNA-Tyr	0.23	<none></none>	<none></none>	<none></none>
4453		Human profilaggrin (FLG) gene exons 2-3, 5'end.	1.3	<none></none>	<none></none>	<none></none>
4454	X65319	Cloning vector pCAT-Enhancer	le-071	987050	(X65335) lacZ gene product [unidentified cloning vector]	1e-014
4455		H.sapiens mRNA for cathepsin C	0	1582221	prepro-cathepsin C [Homo sapiens]	6e-046
4456		Cloning vector pAST 19a for C. elegans	5	<none></none>		<none></none>
4457	D15057	Human mRNA for DAD-1, complete cds	0		(AF051310) defender against death 1 [Mus musculus]	1e-015

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P		
ŠEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4458	X83860	H.sapiens mRNA for prostaglandin E receptor (EP3c)	1.2	2137044	unknown protein - rabbit (fragment) cuniculus]	7e-014	
4459	M95058	Rattus rattus steroid 5-alpha- reductase 2 mRNA, complete cds.	0.42	<none></none>	<none></none>	<none></none>	
4460	AF044588	Homo sapiens protein regulating cytokinesis 1	2e-043	2865521	(AF044588) protein regulating cytokinesis 1; PRC1 [Homo sapiens]	4e-015	
4461	X54282	Human chromosome 11 DNA, approx. 20 kb 3' of beta- globin gene, nuclear scaffold associated region	0.014	1911867	cadherin 3 [Caenorhabditis elegans, Peptide, 3337 aa]	9.8	
4462	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-010	3875640	(Z92781) F09C3.3 [Caenorhabditis elegans]	9.6	
4463	M73791	Human novel gene mRNA, complete cds.	0	1172810	RIBOSOMAL PROTEIN L10 (QM PROTEIN HOMOLOG) >gi 543339 pir  JC 2013 ribosomal protein L10, cytosolic - mouse >gi 2143959 pir  J C4911 ribosomal protein L10 - rat >gi 407466 (X75312) QM protein [Mus musculus] >gi 410742 (M93980) 24.6 kda protein [Mus musc	7e-085	
4464	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant F	Proteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4465	Z27116	S.cerevisiae HBS1, MRP-L20 and PRP-16 genes	0.058	<none></none>	<none></none>	<none></none>		
4466	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4467	M96575	Drosophila melanogaster collagen type IV gene, complete cds.	3.60E+00	<none></none>	<none></none>	<none></none>		
4468	D50010	Human DNA for alpha-platelet- derived growth factor receptor, exon 15	1e-006	<none></none>	<none></none>	<none></none>		
4469	X70649	Homo sapiens DDX1 gene, complete CDS	0	539572	DEAD box protein RB - human	3e-036		
4470	AJ223377	Puumala virus S- segment RNA	1.4	<none></none>	<none></none>	<none></none>		
4471	Y14599	Staphylococcus xylosus lacR, lacP, lacH genes and 2 ORF's	1.4	3659505	(AC005084) similar to mouse mCASK-A; similar to e1288039	0.63		
4472	X13336	Spinach plastid genes rps3, rps19, rpl14, rpl16 and rpl22 for ribosomal proteins S3, S19, L14, L16 and L22	0.15	1330375	(U58758) similar to rat GAP- associated protein p190	0.27		
4473	AF056022	Homo sapiens p60 katanin mRNA, complete cds	0	3283072	(AF056022) p60 katanin [Homo sapiens]	7e-029		
4474	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>		
4475	M86849	Human connexin 26 (GJB2) mRNA.	0		ALDOSE 1- EPIMERASE PRECURSOR calcoaceticus]	5.2		
4476	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4477	ı	G.gallus mRNA for RING zinc finger	9e-031		(X95455) RING zinc finger protein protein [Gallus	9e-038		
			500	<del></del>				

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
					gallus]		
4478	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.13	<none></none>	<none></none>	<none></none>	
4479	J03607	Human 40-kDa keratin intermediate filament precursor gene.	0	1070608	keratin 19, type I, cytoskeletal - human sapiens]	9e-068	
4480	M90104	Human splicing factor SC35 mRNA, complete cds.	e-120	3929382	SPLICING FACTOR, ARGININE/SERI NE-RICH 10 (PUTATIVE MYELIN REGULATORY FACTOR 1) (MRF-1) >gi 555924 (U14648) putative myelin regulatory factor 1; MRF-1 [Mus musculus]	1.1	
4481	AF020762	Homo sapiens clone 1400 unknown protein mRNA, partial cds	6e-067	<none></none>	<none></none>	<none></none>	
4482	AE001386	Plasmodium falciparum chromosome 2, section 23 of 73 of the complete sequence	0.72	<none></none>	<none></none>	<none></none>	
4483		Pseudomonas aeruginosa autoinducer synthetase chloramphenicol- sensitive protein (rarD), and hypothetical protein (yafL) gene	0.005	1709793	SALIVARY PROLINE-RICH PROTEIN PO sapiens]	0.13	
4484	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	

SEQ ID 4485 4486	ACCESSION <none></none>	<none></none>	P VALUE	(BlastX ACCESSION	Nearest Neighbor vs. Non-Redundant DESCRIPTION	Proteins)
ID 4485	<none></none>	<none></none>		ACCESSION		
				<u>i                                     </u>		1 11201
4486	AE001406	DI II	<none></none>	<none></none>	<none></none>	<none></none>
		Plasmodium falciparum chromosome 2, section 43 of 73 of the complete sequence	0.001	<none></none>	<none></none>	<none></none>
4487		Plasmodium falciparum chromosome 2, section 54 of 73 of the complete sequence	2.1	<none></none>	<none></none>	<none></none>
4488		Canine herpesvirus DNA for ORF 1 (HSV1 UL44, EHV1 ORF 15 homolog) ORF2 (EHV1 ORF 16 homolog)	4.4	<none></none>	<none></none>	<none></none>
4489	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.17		(Z68297) Similarity to Yeast TAT-binding homolog 7 (SW:TBP7_YEAS T); cDNA EST EMBL:D37124 comes from this gene; cDNA EST EMBL:D35150 comes from this gene; cDNA EST EMBL:D35400 comes from this gene; cDNA EST EMBL:D34900 comes >gi 4008373 gnl PI D e135984	,
4490		Homo sapiens mRNA for squalene epoxidase, complete cds	0	2443316	(D78130) squalene epoxidase [Homo sapiens]	5e-008
4491	i i	Buchnera aphidicola Arginyl tRNA synthetase	0.16	<none></none>	<none></none>	<none></none>

	ľ	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
		promoter region.					
4492	X17206	Human mRNA for LLRep3	e-112	1350976	40S RIBOSOMAL PROTEIN S2 >gi 939718	2e-005	
4493	D28473	Human T- lymphocyte mRNA for isoleucyl-tRNA synthetase, complete cds	e-157	440799	(U04953) isoleucyl-tRNA synthetase [Homo sapiens]	3e-005	
4494	L13624	Cercopithecus aethiops C4 complement	3.6	<none></none>	<none></none>	<none></none>	
4495	M13011	Rat c-ras-H-1 gene, complete cds.	0.25	<none></none>	<none></none>	<none></none>	
4496	Y10252	L.japonicus panC gene	0.38	627071	histidine-rich protein - Plasmodium Iophurae	4.4	
4497	X76683	Plasmid vector pHM2 betalactamase gene	1e-093	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-015	
4498	M24486	Human prolyl 4- hydroxylase alpha subunit mRNA, complete cds, clone PA-11.	0	129365	PROLYL 4- HYDROXYLASE ALPHA SUBUNIT 1.14.11.2) alpha chain - chicken	2e-057	
4499		Human mRNA for KIAA0182 gene, partial cds	2e-068	<none></none>	<none></none>	<none></none>	
4500	U22233	Human methylthioadenos ine phosphorylase (MTAP) mRNA, complete cds.	0	<none></none>	<none></none>	<none></none>	
4501		Human mRNA for KIAA0155 gene, complete cds > :: gb G28541 G285 41 human STS SHGC-31621.	503	961442	(D63875) KIAA0155 gene product is related to C.elegans B0464.2 protein. [Homo sapiens]	2e-019	

		Nearest Neighbor			Nearest Neighbor	
	(E	BlastN vs. Genbank		(BlastX	vs. Non-Redundant I	Proteins)
SEQ ID	ACCESSION		P VALUE	ACCESSION	DESCRIPTION	P VALUE
4502	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4503	X85018	H.sapiens mRNA for UDP-GalNAc:polypept ide N-acetylgalactosami nyltransferase (T1)	e-110	<none> 1709559</none>	NONE> POLYPEPTIDE N- ACETYLGALAC TOSAMINYLTR ANSFERASE (PROTEIN-UDP ACETYLGALAC TOSAMINYLTR ANSFERASE) N- ACETYLGALAC TOSAMINYLTR ANSFERASE) (GALNAC-T1) polypeptide N- acetylgalactosamin yltransferase [Rattus norvegicus]	<none> 2e-018</none>
4504	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4505	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4506	AF067782 AF073298	Papio hamadryas BC200 alpha scRNA gene, complete sequence Homo sapiens	0.48 e-166	<none></none>	<none></none>	<none></none>
		4F5rel mRNA, complete cds	0 100	3041330	4F5rel [Mus musculus] >gi 3641538 (AF073298) 4F5rel [Homo sapiens]	3e-013
4508		Yeast (S.cerevisiae) chromosome III L terminal region DNA.	2e-010	188864	(M74027) mucin [Homo sapiens]	6e-023
4509		M.squamata cabc1 mRNA for chlorophyll a/b/c binding protein precursor	1.3	<none></none>	<none></none>	<none></none>
4510		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	1.2	<none></none>	<none></none>	<none></none>

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant I			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE		
4512	U12404	Human Csa-19 mRNA, complete cds.	_	1709973	60S RIBOSOMAL PROTEIN L10A (CSA-19)	4e-056		
4513	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-014	<none></none>	<none></none>	<none></none>		
4514	<none></none>	<none></none>	<none></none>	121627	GLYCINE-RICH CELL WALL STRUCTURAL PROTEIN 1 PRECURSOR >gi 82244 pir  A26 099 glycine-rich cell wall structural protein - garden petunia >gi 20553 hybrida] >gi 225181 prf  12 10313A Gly rich structural protein [Petunia sp.]	2e-030		
4515	D87255	Hepatitis G virus RNA for polyprotein, complete cds	0.19	930045	(X15332) alpha-1 (III) collagen [Homo sapiens]	0.002		
4516	U31820	Gallus gallus Mel-1a melatonin receptor mRNA, complete cds.	3.3	1718187	ENVELOPE GLYCOPROTEIN GP340 glycoprotein 350/220 - human herpesvirus 4 >gi 59164 virus] >gi 306293 (L07923) glycoprotein 340	0.096		
4517		M.sativa msCHSII mRNA for chalcone synthase	3.4	<none> ,</none>	<none></none>	<none></none>		
4518	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4519		Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	6e-006		(U40415) similar to S. cerevisiae LAG1 (SP:P38703)	0.001		

		Nearest Neighbor	<del></del>	T	Normat Mainti		
		BlastN vs. Genbank)		Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4520	D87671	Det Data C	1 040				
14520	D8/0/1	Rat mRNA for TIP120, complete	1e-043	1799570	(D87671) TIP120	0.01	
		cds		j	[Rattus		
4521	<none></none>	<none></none>	<none></none>	<none></none>	norvegicus]		
4522		<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4523		Human mRNA	4e-022	1085204	<none></none>	<none></none>	
1		for elongation	1 40-022	1085204	translation elongation factor	5.1	
	·	factor 1-alpha		]	eEF-1 alpha chain		
		(clone CEF4)		•	- zebra fish		
1					>gi 408805		
	1				(L23807)		
					elongation factor		
1					1-alpha [Danio		
	j				rerio] >gi 454915		
	Í				(X77689)		
l	1				translational		
					elongation factor-1		
	1				alpha [Danio rerio] >gi 1009241 rerio]		
			į		>gi 1009241 1e110]  >gi 1091578 prf  2		
					021264A		
4524	Liosino				elongation fact		
4324	U95102	Xenopus laevis	3e-010	<none></none>	<none></none>	<none></none>	
		mitotic phosphoprotein	l				
1		90 mRNA,	İ				
}		complete cds					
4525	U95102	Xenopus laevis	2e-007	<none></none>	<none></none>	<none></none>	
		mitotic		TIONE	NONE	-NONE>	
		phosphoprotein					
		90 mRNA,				ł	
4526	ZNOVE:	complete cds				. [	
4527	<none> AF069250</none>		<none></none>	<none></none>	<none></none>	<none></none>	
7321	731°003230	Homo sapiens okadaic acid-	7e-080		(AF041330)	0.0001	
		inducible			NADH		
		phosphoprotein			dehydrogenase		
		(OA48-18)			subunit 5 [Bodo saltans]		
		mRNA, complete		l	sanansj		
		cds	[			1	
4528		Homo sapiens	7e-080	3037018	(AF041330)	0.0001	
]		okadaic acid-	1		NADH	0.0001	
	· ·	inducible			dehydrogenase		
	ľ	phosphoprotein	i		subunit 5 [Bodo	ſ	
			i	Į,		j j	
	ļ	(OA48-18)			saltans]		

	Nearest Neighbor			Nearest Neighbor			
250		lastN vs. Genbank)			s. Non-Redundant P		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4529	U66532	Human beta4- integrin (ITGB4) gene, exons 7,8,9,10,11 and 12	0.51	119110	EBNA-1 NUCLEAR PROTEIN herpesvirus 4 (strain B95-8) >gi 1334880 (V01555) BKRF1 encodes EBNA-1 protein, latent cycle gene. [Human herpesvirus 4]	1e-023	
4530	X65319	Cloning vector pCAT-Enhancer	1e-074	987050	(X65335) lacZ gene product [unidentified cloning vector]	8e-011	
4531	AJ010841	Homo sapiens mRNA for putative thioredoxin-like protein	8e-028	3646128	(AJ010841) thioredoxin-like protein	0.062	
4532	D14034	Human gene for Zn-alpha2-glycoprotein, complete cds	0.005	<none></none>	<none></none>	<none></none>	
4533	M12670	Human fibroblast collagenase inhibitor mRNA, complete cds.	6e-098	1351250	METALLOPROT EINASE INHIBITOR 1 PRECURSOR (TIMP-1) >gi 1363927 pir  J C4303 matrix metalloproteinase-1 tissue inhibitor -baboon >gi 561546 hamadryas cynocephalus]	7e-008	
4534		A.californica (marine gastropod mollusc) neuropeptide gene (ganglion R14), exon 1, 5' end.	0.019	2135765	mucin 2 precursor, intestinal - human	0.003	
4535		Homo sapiens mRNA for testican-3	1.4	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor	<del></del>		Nearest Neighbor			
CEC	1 4000000	BlastN vs. Genban		(Blast	(BlastX vs. Non-Redundant			
SE(		Joseph Mon	P VALU	E ACCESSION	ON DESCRIPTION	P VALU		
453		G.gallus cycB3 mRNA.	9e-040	729112	G2/MITOTIC- SPECIFIC CYCLIN B3	9e-019		
453		S.cerevisiae HBS1, MRP-L20 and PRP-16 genes	0.058	<none< td=""><td></td><td><none:< td=""></none:<></td></none<>		<none:< td=""></none:<>		
4538	AF083322	Homo sapiens centriole associated protein CEP110 mRNA, complete cds	9e-051	1079393	chicken >gi 603761 (U18309) chromokinesin	0.012		
4539	<none></none>	<none></none>	<none></none>	<none></none>	[Gallus gallus]	1		
4540	M26325	Human cytokeratin 18 mRNA, 3' end.	0	125083	KERATIN, TYPE I CYTOSKELETA L 18 keratin 18, type I, cytoskeleta - human >gi 34037			
4541	U37066	Human endogenous retrovirus strain XA38 pol polyprotein (pol) gene, partial cds	1.3	252486	P-selectin, CD62 [mice, Peptide, 768 aa] musculus]	1.8		
4542	Z30543	Turkey herpesvirus (HVT-delUs- Beta1 PKI3) gene for protein kinase	2e-027	<none></none>	<none></none>	<none></none>		
4543	M90077	Wheat translation elongation factor 1 alpha-subunit (TEF1) mRNA, complete cds.	0.14	<none></none>	<none></none>	<none></none>		
4544	AJ001235	Papio hamadryas ERV-9 like LTR insertion	2e-044	<none></none>	<none></none>	<none></none>		
4545	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	-NONE		
4546	AF100654	Caenorhabditis elegans cosmid C24E9	0.41	<none></none>	<none></none>	<none></none>		
4547		Homo sapiens alpha mannosidase II isozyme mRNA, complete cds.	0	1679607	(X97650) myosin- I [Mus musculus]	4.5		

		Nearest Neighbor			Nearest Neighbor			
CEC		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	<u> </u>	DESCRIPTION	P VALUE		
4548	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-013	<none></none>	<none></none>	<none></none>		
4549	L20140	Zea mays pollen specific pectate lyase homologue gene, complete cds.	0.92	<none></none>	<none></none>	<none></none>		
4550	U33955	Human Down Syndrome region of chromosome 21, genomic sequence, clone A12H1-1F2.	4.4	<none></none>	<none></none>	<none></none>		
4551	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0005	<none></none>	<none></none>	<none></none>		
4552	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.042	<none></none>	<none></none>	<none></none>		
4553	X12660	Human chromosome 14 Ig JH (switch mu) DNA showing scattered homology to bcl2 gene exon 2 3'UTR	1e-006	2117245	(Z95586) hypothetical protein Rv1592c	2.1		
4554	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.002	284314	modulator recognition factor 1 - human factor I [Homo sapiens]	7.1		
4555		Homo sapiens JWA protein mRNA, complete cds	0	3322740	(AE001222) conserved hypothetical protein [Treponema pallidum]	5.9		
4556		H.sapiens OTF3 gene	0.13	<none></none>	<none></none>	<none></none>		

		Nearest Neighbor			Niger of Ni 11	
		(BlastN vs. Genbank)	)	(Blast)	Nearest Neighbor Vs. Non-Redundan	· • Donate !
SEQ	ACCESSIO	N DESCRIPTION	P VALUI	ACCESSIO	N DESCRIPTION	PVALUE
ID					DESCRIPTION	PVALUE
4557	M24972	D.discoideum	4e-007	2605798	(AF027735) min	or 5.30E-01
		CT-rich satellite		1	ampullate silk	3.30L-01
		rDNA, clone		1	protein MiSp1	ĺ
4558	710.500	pCT8.			[Nephila clavipe	s1
4338	U95098	Xenopus laevis	8e-007	<none></none>	<none></none>	<none></none>
		mitotic	1			THOME
		phosphoprotein	1		1	Í
	İ	44 mRNA, partial				
4559	D32056	cds				
1337	D32030	Human gene for	0.06	<none></none>	<none></none>	<none></none>
		2-oxoglutarate dehydrogenase,				
		exon 1 sequence				
4560	AF034085	Caenorhabditis	0.025	168916		
	1 03 1003	elegans UNC-45	0.025	1652167	(D90903)	4.8
		(unc-45) gene,			hypothetical	1
1		complete cds			protein	
4561	AF091242	Homo sapiens	0.0003	<none></none>	ALONE.	
		ATP	0.0003	/IOME>	<none></none>	<none></none>
		sulfurylase/APS				
		kinase 2 mRNA,				1 1
1000		complete cds				1 1
4562	M31520	Human ribosomal	le-031	2072296	(U95098) mitotic	5.7
		protein S24			phosphoprotein 44	
4563	Alones	mRNA.			[Xenopus laevis]	
4564	<none> U95094</none>		<none></none>	<none></none>	<none></none>	<none></none>
7304	093094	Xenopus laevis	0.0005	<none></none>	<none></none>	<none></none>
	•	XL-INCENP (XL-INCENP)	ľ			
		mRNA, complete	İ			
		cds				
4565	AB015432	Rattus norvegicus	4e-022	1665750	(D07400) 01	
	j	mRNA for LAT1	70-022	1665759	(D87432) Similar	5e-024
		(L-type amino	1		to Schistosoma	
		acid transporter			mansoni amino acid permease	
		1), complete cds			(L25068). [Homo	1
1221					sapiens]	
4566		Plasmodium	0.0005	3875266	(Z77655)	5.90E+00
		falciparum			predicted using	J.90E+00
		chromosome 2,			Genefinder;	
		section 34 of 73	İ	İ	similar to 7tm	
		of the complete		J	receptor	
- [	İ	sequence			[Caenorhabditis	
į.		1	1		elegans]	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4567	AE001397	Plasmodium falciparum chromosome 2, section 34 of 73 of the complete sequence	0.0005	3875266	(Z77655) predicted using Genefinder; similar to 7tm receptor [Caenorhabditis elegans]	5.90E+00	
4568	Y15155	Homo sapiens PHKB gene, exon 8, and repetitive elements	4e-033	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.7	
4569	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-03	2622750	(AE000921) DNA topoisomerase I [Methanobacteriu m thermoautotrophic um]	2.6	
4570	AE000688	Aquifex aeolicus section 20 of 109 of the complete genome	4.5	<none></none>	<none></none>	<none></none>	
4571	Z95123	Caenorhabditis elegans cosmid VZK8221, complete sequence [Caenorhabditis elegans]	0.4	<none></none>	<none></none>	<none></none>	
4572	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3.00E-08	<none></none>	<none></none>	<none></none>	
4573	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.3	
4574	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-006	<none></none>	<none></none>	<none></none>	
4575	U18671	Human Stat2 gene, complete cds.	2e-023		!!!! ALU SUBFAMILY J WARNING ENTRY	0.002	

		Nearest Neighbor		Nearest Neighbor			
SEQ	ACCESSIO	(BlastN vs. Genbank		(Blast)	(BlastX vs. Non-Redundant Proteins		
ID	Accessio	N DESCRIPTION	P VALU	E ACCESSIC	DN DESCRIPTION	P VALU	
4576	Z83241	Caenorhabditis elegans cosmid T25C8, complete sequence [Caenorhabditis elegans]	1.1	1176988	protein [Bacillus subtilis] >gi 2636519 gnl P D e1184698 catabolism	5.3	
4577	L04690	Cricetulus griseus cholesterol 7- alpha- hydroxylase gene complete cds. > :: gb 126617 126617 Sequence 35 from patent US 5558999 > :: gb AR008072 AR 008072 Sequence 35 from patent US 5753431	,	212906	[Bacillus subtilis] (L02621) intestinal zipper protein [Gallus gallus]	4.1	
4578	Z54191	A.pleuropneumon iae tfbB gene encoding transferrin receptor.	0.54	2102696	(U72761) karyopherin beta 3 [Homo sapiens]	8.6	
4579	X17025	Human homolog of yeast IPP isomerase > :: gb G27043 G270 43 human STS SHGC-31614.	2e-035	<none></none>	<none></none>	<none></none>	
4580	L32977	Homo sapiens (clone f17252) ubiquinol cytochrome c reductase Rieske iron-sulphur protein (UQCRFS1) gene, exon 2	0.00E+00	1351361	UBIQUINOL- CYTOCHROME C REDUCTASE IRON-SULFUR SUBUNIT PRECURSOR (RIESKE IRON- SULFUR PROTEIN) (RISP) >gi 488299 (L32977) Rieske Fe-S protein	1e-070	
4581		Human prothymosin alpha mRNA (ProT-alpha), complete cds.	0	190369	(J04798) open reading frame A; putative [Homo sapiens]	6e-018	

	Nearest Neighbor			Nearest Neighbor			
		BlastN vs. Genbank)			s. Non-Redundant I		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE		DESCRIPTION	P VALUE	
4582	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-014	2314130	(AE000607) H. pylori predicted coding region HP0985	3.3	
4583	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-011	1236083	(U49507) Lisch7 [Mus musculus]	4.3	
4584	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-014	348196	(L19917) immunoglobulin heavy-chain subgroup VIII V- D-J region [Homo sapiens]	9.7	
4585	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4586	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4587	X52601	H.sapiens hTOP1 gene for topoisomerase, 5'end	4.6	<none></none>	<none></none>	<none></none>	
4588	AF038604	Caenorhabditis elegans cosmid B0546	0.17	<none></none>	<none></none>	<none></none>	
4589	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4590	U23 <u>4</u> 41	Tetrahymena thermophila B internal deletion sequence.	0.0005	1469281	(U08801) envelope glycoprotein [Human immunodeficiency virus type 1]	1.1	
4591		Homo sapiens clone fragment UWGC:gap3 from 7q31.3, complete sequence [Homo sapiens]	0.009	<none></none>	<none></none>	<none></none>	
4592		Homo sapiens DNA for prostacyclin synthase, exon 3	0.48	<none></none>	<none></none>	<none></none>	
4593		Caenorhabditis elegans UNC-76 (unc-76) gene, complete cds.	1.30E-01	<none></none>	<none></none>	<none></none>	

	Nearest Neighbor		Nearest Neighbor			
	(E	BlastN vs. Genbank)	•	(BlastX	vs. Non-Redundant	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
4594	U67274	Human metastasis suppressor (KAI1) gene, exon 1, and complete cds	1e-008	<none></none>	<none></none>	<none></none>
4595	AF009621	Onchocerca volvulus cytosolic Cu/Zn superoxide dismutase (OvSOD1) and extracellular Cu/Zn superoxide dismutase (OvSOD2) genes, complete cds	4	<none></none>	<none></none>	<none></none>
4596	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4597	<none></none>	<none></none>	<none></none>	2078483	(U43200) antifreeze glycopeptide AFGP polyprotein precursor [Boreogadus saida]	0.78
4598	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4599	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4600	AL021806	Homo sapiens DNA sequence from PAC 779B17 on chromosome 22q13.1. Contains exon trap, complete sequence	4e-029	728836	!!!! ALU SUBFAMILY SP WARNING ENTRY	0.002
4601		Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 3-118, complete sequence	4.9	<none></none>	<none></none>	<none></none>
4602		N.tabacum DNA (recombination breakpoint between T-DNA and plant DNA)	1.6	<none></none>	<none></none>	<none></none>

		Nearest Neighbor		Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
		lastN vs. Genbank)					
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4603	AF082835	Mus spretus E6- AP ubiquitin- protein ligase	4	<none></none>	<none></none>	<none></none>	
4604	AF050123	Homo sapiens hypoxia-inducible factor 1 alpha subunit (HIF1A) gene, exon 10	3e-009	728838	!!!! ALU SUBFAMILY SX WARNING ENTRY	6.7	
4605	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-006	<none></none>	<none></none>	<none></none>	
4606	AF001355	Pseudomonas syringae pv. syringae DNA binding protein HpkR (hpkR), histidine protein kinase HpkY (hpkY), phosphate acceptor regulatory protein CheY-2 (cheY-2), ankyrin AnkF (ankF), and catalase isozyme catalytic subuni	2.1	3041736	TRANSCRIPTIO N FACTOR SOX- 11	8.9	
4607	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8.00E-08	3123155	HYPOTHETICAL 49.0 KD TRP- ASP REPEATS CONTAINING PROTEIN F55F8.5 IN CHROMOSOME I family [Caenorhabditis elegans]	2e-027	
4608	<none></none>	<none></none>	<none></none>	1170978	MYOCYTE NUCLEAR FACTOR (MNF) musculus]	0.18	
4609	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	4e-009		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	8.9	

		Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)	)	(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4610	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-007	<none></none>	<none></none>	<none></none>		
4611	X75861	H.sapiens TEGT gene	e-177	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.8		
4612	U19867	Cloning vector pSPL3, exon splicing vector, complete sequence, HIV envelope protein gp160 and beta- lactamase, complete cds.	5e-055	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-011		
4613	U73332	Human non- coding genomic sequence upstream from unique L0 sequence in the alpha-globin gene cluster	8e-008	<none></none>	<none></none>	<none></none>		
4614	<none></none>	<none></none>	<none></none>	193952	(J03770) homeobox protein [Mus musculus]	6		
4615		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-006		HYPOTHETICAL 29.2 KD PROTEIN IN METS-KSGA INTERGENIC REGION >gi 2127033 pir  S 66068 hypothetical protein - Bacillus subtilis subtilis] >gi 2632306 gnl PI D e1181972 (Z99104) similar to hypothetical proteins [Bacillus subtilis]	5e-019		
4616		Yeast (S.cerevisiae) mitochondrial varl gene, 5'	0.001	<none></none>	<none></none>	<none></none>		

		Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
		flank.	<del> </del>				
ļ							
ĺ		·					
4617	J04628	Rattus norvegicus	e-154	416873	3-	1e-049	
		3-hydroxyiso-			HYDROXYISOB		
	:	butyrate mRNA, 3' end.			UTYRATE DEHYDROGENA		
		S end.			SE PRECURSOR	1	
		İ			(HIBADH)		
					>gi 111295 pir  A3		
					2867 3-		
					hydroxyisobutyrat		
					e dehydrogenase		
					(EC 1.1.1.31) precursor - rat		
					(fragment)		
					>gi 556389		
					(J04628) 3-		
1.					hydroxyisobutyrat		
	!				e dehydrogenase		
					[Rattus norvegicus]		
4618	U95098	Xenopus laevis	0.38	<none></none>	<none></none>	<none></none>	
		mitotic					
		phosphoprotein					
		44 mRNA, partial					
4619	U10361	cds Saccharomyces	2.7	<none></none>	<none></none>	<none></none>	
4019	010301	cerevisiae Snf8p	2.7	\NONE>	NONE	NONE>	
	•	(SNF8) gene,			Í		
		complete cds.					
4620	D42044	Human mRNA	e-151	577301	(D42044) The	4e-052	
		for KIAA0090			ha3523 gene		
		gene, partial cds	1		product is related to S.cerevisiae		
			ļ		gene product		
					located in		
					chromosome III.		
					[Homo sapiens]		
4621		Saccharomyces	2.7	<none></none>	<none></none>	<none></none>	
		cerevisiae Snf8p		Ī			
		(SNF8) gene,		ļ	1	}	
4622	<none></none>	complete cds. <none></none>	ZNONES	NONE	NONES	<nove:< td=""></nove:<>	
4022	-NONE>	NONE>	<none></none>	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		T	Nearest Neighbor	
	(E	BlastN vs. Genbank	)	(BlastX	vs. Non-Redundant	Proteins)
SEQ ID	ACCESSION	1.01	P VALUE	ACCESSION	DESCRIPTION	P VALU
4623	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3.00E-10	<none></none>	<none></none>	<none< td=""></none<>
4624	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3.00E-10	<none></none>	<none></none>	<none:< td=""></none:<>
4625	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4626	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4627	X03559	Human hnRNP core protein A1  Human mRNA for F1-ATPase beta subunit (F-1 beta) > :: dbj D00022 HUM F1B Homo sapiens mRNA for F1 beta subunit, complete cds	7e-049 e-100	114549	heterogeneous ribonuclear particle protein A1.beta - human >gi 36102 (X06747) protein A1-alpha (AA 1-320) [Homo sapiens] ATP SYNTHASE BETA CHAIN, MITOCHONDRI AL PRECURSOR >gi 106207 pir  A3 3370 H+- transporting ATP synthase (EC 3.6.1.34) beta chain precursor, mitochondrial - human >gi 179281 (M27132) ATP synthase beta subunit precursor	1
4629	<none></none>	<none></none>	<none></none>	<none></none>	[Homo sapiens] <none></none>	AIONES
4630	K00915	paramecium species 1,168 mt dna dimer: replication init. region.	7.00E-05	<none></none>	<none></none>	<none></none>
4631	K00915	paramecium species 1,168 mt dna dimer: replication init. region.	7.00E-05	<none></none>	<none></none>	<none></none>
4632	<none></none>		<none></none>	<none></none>	<none></none>	<none></none>
			510		2.0171	-INOINE>

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)	<del>,</del>		s. Non-Redundant P	,		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4633	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4634	Z28261	S.cerevisiae chromosome XI reading frame ORF YKR036c	0.042	417748	PROTEIN TRANSPORT PROTEIN SEC13	0.0002		
4635	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>		
4636	AF088034	Homo sapiens full length insert cDNA clone ZC24F03	0	854598	(X87611) ORF YJR83.18 [Saccharomyces cerevisiae]	2e-024		
4637	M83094	Homo sapiens cytosolic selenium-dependent glutathione peroxidase gene, complete cds, and rhoh12 gene, 3' end.	3.00Ê-08	<none></none>	<none></none>	<none></none>		
4638	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-006	1176711	HYPOTHETICAL 21.6 KD PROTEIN F37A4.2 IN CHROMOSOME III >gi 1078851 pir  S 44639 F37A4.2 protein - Caenorhabditis elegans >gi 458960	2e-017		
4639	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-006		HYPOTHETICAL 21.6 KD PROTEIN F37A4.2 IN CHROMOSOME III >gi 1078851 pir  S 44639 F37A4.2 protein - Caenorhabditis elegans >gi 458960	2e-017		

		Nearest Neighbor		<del></del>	Nearest Neighbor	·
	(I	BlastN vs. Genbank)	)	(BlastX	vs. Non-Redundant	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
4640	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>
4641	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>
4642	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	4056582	(AF039530) RepA [Egyptian sugarcane streak virus]	3.4
4643	U96174	Onchocerca volvulus OvB8 mRNA, partial cds	3.2	<none></none>	<none></none>	<none></none>
4644	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4645	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-005	3236220	(U62541) immunoreactive 14 kDa protein BA14k [Brucella abortus]	4.5
4646	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-005	3236220	(U62541) immunoreactive 14 kDa protein BA14k [Brucella abortus]	4.5
4647	AL010224	Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 4-04, complete sequence	0.003	2492906	ANNEXIN VII (SYNEXIN) frog >gi 790544 (U16365) annexin VII [Xenopus laevis]	1.4
4648		Atractylodes japonica chloroplast NADH dehydrogenase (ndhF) gene, complete cds	0.003	<none></none>	<none></none>	<none></none>
4649		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete	4e-013	<none></none>	<none></none>	<none></none>

	ľ	Nearest Neighbor		Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
		cds					
4650	U79403	Meleagris gallopavo microsatellite repeat sequence	0.46	2498691	OUTER DENSE FIBER PROTEIN bovine >gi 1165006 (X69514) outer dense fiber protein protein [Bos taurus]	1.4	
4651	U27780	Stealth virus 1 clone C16138 T3.1	2	<none></none>	<none></none>	<none></none>	
4652	U27780	Stealth virus 1 clone C16138 T3.1	2	<none></none>	<none></none>	<none></none>	
4653	U78817	Saccharomyces cerevisiae killer virus M1, complete genome	0.026	<none></none>	<none></none>	<none></none>	
4654	U78817	Saccharomyces cerevisiae killer virus M1, complete genome	0.026	<none></none>	<none></none>	<none></none>	
4655	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4656		Human mRNA stimulatory GTP- binding protein alpha subunit	3e-071		GUANINE NUCLEOTIDE- BINDING PROTEIN G(S), ALPHA SUBUNIT (ADENYLATE CYCLASE- STIMULATING G ALPHA PROTEIN) >gi 71886 pir  RG PGA2 GTP- binding regulatory protein Gs alpha-2 chain (adenylate cyclase- stimulating) - pig >gi 1958 (X63893) alpha-stimulatory subunit	8e-027	

		Nearest Neighbor		1	Nearest Neighbor	· · · · · ·	
	(I	BlastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE	
4657	L05586	Kinetoplast Trypanosoma brucei (IsTaR 1 serodeme) putative NADH	0.0001	4063042	(AF068065) GP900; mucin-like glycoprotein [Cryptosporidium	0.19	
		dehydrogenase subunit (nd9) mRNA, complete cds.			parvum]		
4658	AF044763	Cecropis ariel microsatellite HrU6 allele 1 repeat region	3e-006	<none></none>	<none></none>	<none></none>	
4659	X82630	A.longa plastid rps12, orf126 and orf288 genes	0.22	<none></none>	<none></none>	<none></none>	
4660	U68098	Human poly(A)- binding protein (PABP) gene, exons 6 and 7	0.023	<none></none>	<none></none>	<none></none>	
4661	U68098	Human poly(A)- binding protein (PABP) gene, exons 6 and 7	0.023	<none></none>	<none></none>	<none></none>	
4662	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-011	1022683	(U23146) SSeCKS [Rattus norvegicus]	1.4	
4663	M15353	Homo sapiens cap-binding protein mRNA, complete cds	0	<none></none>	<none></none>	<none></none>	
4664	Z57610	H.sapiens CpG DNA, clone 187a10, reverse read cpg187a10.rt1a.	3e-048		HEPATOCYTE NUCLEAR FACTOR 3-BETA norvegicus]	2.00E-10	
4665		Hevea brasiliensis Mn- superoxide dismutase (SODMn) gene, complete cds.	2.6	<none></none>		<none></none>	
4666		Human mRNA for reticulocalbin, complete cds	3e-019	1	(U95098) mitotic phosphoprotein 44 (Xenopus laevis)	6.4	

	]	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4667	L12350	Human thrombospondin 2 (THBS2) mRNA, complete cds.	0	<none></none>	<none></none>	<none></none>	
4668	L11707	Hevea brasiliensis Mn- superoxide dismutase (SODMn) gene, complete cds.	2.6	<none></none>	<none></none>	<none></none>	
4669	AC000043	Homo sapiens Chromosome 22q13 Cosmid Clone p74a8, complete sequence [Homo sapiens]	2e-016	134589	TRANSCRIPTION REGULATORY PROTEIN SNF2 SWI2) (REGULATORY PROTEIN GAM1) (TRANSCRIPTION FACTOR TYE3) >gi 101629 pir  S1 5047 SNF2 protein - yeast protein [Saccharomyces cerevisiae] >gi 172632 (M61703) SNF2protein [Saccharomyces cerevisiae] cerevisiae] cerevisiae]	1.5	
4670	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-006	69700	interleukin-1 beta precursor - bovine	0.6	
4671	U44975	Homo sapiens DNA-binding protein CPBP (CPBP) mRNA, partial cds	2e-045	1848233	(U44975) DNA- binding protein CPBP [Homo sapiens]	0.009	

		Nearest Neighbor		Noneset Nisiahhan			
		Hearest Neighbor BlastN vs. Genbank)		Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	PVALUE	(BlastX V			
ID	Meebsion	DESCRIPTION	PVALUE	ACCESSION	DESCRIPTION	P VALUE	
4672	AF038406	Homo sapiens	0	2326168	(1122107)		
,2	111 030400	NADH	1	2320108	(U32107) type VII	1.5	
1		dehydrogenase-			collagen [Mus	1	
		ubiquinone Fe-S			musculus]	1	
		protein 8 23 kDa		İ		1	
		subunit		}			
		(NDUFS8) gene,	i				
		nuclear gene					
		encoding	1			]	
		mitochondrial	]			İ	
		protein, complete					
		cds			1		
4673	X67951	H.sapiens mRNA	0	548453	THIOREDOXIN	2e-083	
		for proliferation-		340433	PEROXIDASE 2	26-083	
		associated gene			CELL		
					ENHANCING		
					FACTOR A)		
					(NKEF-A)		
			ĺ		>gi 423025 pir  A4		
					6711 proliferation		
					associated gene		
					(pag) protein -		
					human gene		
					product [Homo		
	<del></del>				sapiens]		
4674	AC001013	Homo sapiens	2e-017	2072961	(U93568) putative	0.0001	
]		(subclone 2_d1			p150 [Homo		
		from P1 H43)			sapiens]		
1675	T10 500 1	DNA sequence					
4675	U95094	Xenopus laevis	4e-012	1589837	(U68729) cuticle	0.035	
		XL-INCENP	İ		preprocollagen	Ì	
		(XL-INCENP)			[Meloidogyne	İ	
		mRNA, complete	I		incognita]		
4676	M15353	cds Home senions		AIONE:	2103		
'''	(((((111)	Homo sapiens	0	<none></none>	<none></none>	<none></none>	
	ļ	cap-binding protein mRNA,	,		Ì		
		complete cds	l				
ـــــــــــــــــــــــــــــــــــــ		complete cus					

		Nearest Neighbor			Nearest Neighbor			
	(I	BlastN vs. Genbank	)	(BlastX)	(BlastX vs. Non-Redundant Proteins)			
SEQ ID			P VALUE			P VALUE		
4677	M37583	Human histone (H2A.Z) mRNA, complete cds.	0	121994	HISTONE H2A.Z  >gi 89608 pir  S03 642 histone  H2A.Z - bovine  >gi 92380 pir  S03 644 histone  H2A.Z - rat  >gi 106267 pir  A3 5881 histone  H2A.Z - human  sapiens] >gi 57808  (X52316) histone  H2A.Z (AA 1-  127) taurus]  >gi 184060  (M37583) histone  (H2A.Z) [Homo			
4678	M15353	Homo sapiens cap-binding protein mRNA, complete cds	0	<none></none>	sapien <none></none>	<none></none>		
4679	Z57610	H.sapiens CpG DNA, clone 187a10, reverse read cpg187a10.rt1a.	4e-094	404764	(L10409) fork head related protein [Mus musculus]	4e-024		
4680	Z57610	H.sapiens CpG DNA, clone 187a10, reverse read cpg187a10.rt1a.	4e-094	404764	(L10409) fork head related protein [Mus musculus]	4e-024		
4681	Z57610	H.sapiens CpG DNA, clone 187a10, reverse read cpg187a10.rt1a.	4e-094	_	(L10409) fork head related protein [Mus musculus]	4e-024		
4682	L11707	Hevea brasiliensis Mn- superoxide dismutase (SODMn) gene, complete cds.	2.6	<none></none>	<none></none>	<none></none>		
4683	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4684	<none></none>	<none></none>	<none></none>	2114323	(D88734) membrane glycoprotein [Equine herpesvirus 1]	0.052		

	(5	Nearest Neighbor		Nearest Neighbor				
SEQ	ACCESSION	BlastN vs. Genbank)			vs. Non-Redundant I	•		
ID			PVALUE	ACCESSION	DESCRIPTION	P VALUE		
4685	AJ224875	Homo sapiens mRNA for putative glucosyltransferas e, partial cds		2996578	(AJ224875) glucosyltransferas e [Homo sapiens]	e-118		
4686	AB019534	Homo sapiens gene for cathepsin L2, complete cds	2e-045	<none></none>	<none></none>	<none></none>		
4687	J03799	Human colin carcinoma laminin-binding protein mRNA, complete cds.	e-166	34272	(X15005) pot. lamimin-binding protein (AA 1 - 300) [Homo sapiens]	5e-032		
4688	<none></none>	<none></none>	<none></none>	2114323	(D88734) membrane glycoprotein [Equine herpesvirus 1]	0.052		
4689	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	9e-009	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	9.8		
4690	D44598	Saccharomyces cerevisiae chromosome VI phage 4121	1e-009	3947877	(AL034382) putative mitosis and maintenance of ploidy protein [Schizosaccharom yces pombe]	6e-061		
4691	AF053520	Homo sapiens allele 12 fragile site locus	0.61	<none></none>	<none></none>	<none></none>		
4692	D16195	Mouse gene for acrogranin precursor, complete cds	0.059	<none></none>	<none></none>	<none></none>		
4693		Human clone 23773 mRNA sequence	0	3130153	(AB008857) calcium2+ sensing receptor	1.5		
4694		Homo sapiens DNA sequence, repeat region.	7e-017	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.1		
4695	ĺ.	Homo sapiens DNA sequence, repeat region.	7e-017	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.1		

		Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4696	J03746	Human glutathione S-transferase mRNA, complete cds.	e-170	121740	GLUTATHIONE S- TRANSFERASE, MICROSOMAL >gi 87562 pir  B28 083 glutathione transferase glutathione S- transferase [Homo sapiens] >gi 1195483 sapiens] >gi 1621433 (U71213) microsomal glutathione s- transferase [Homo sapiens]	2e-038	
4697	AF082283	Homo sapiens CARD- containing apoptotic signaling protein (BCL10) mRNA, complete cds	5e-046	4049460	(AJ006288) bcl-10 [Homo sapiens] signaling protein [Homo sapiens]	0.005	
4698	D64142	Human mRNA for histone H1x, complete cds	1e-039	<none></none>	<none></none>	<none></none>	
4699	AB001899	Homo sapiens PACE4 gene, exon 2	4e-012	3860844	(AJ235271) NADH DEHYDROGENA SE I CHAIN L	3.5	
4700	X16869	Human mRNA for elongation factor 1-alpha (clone CEF4)	0	1169475	ELONGATION FACTOR 1- ALPHA 1	6e-061	
4701		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6.00E-05	<none></none>	<none></none>	<none></none>	
4702		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-013		PROBABLE UBIQUITIN CARBOXYL- TERMINAL HYDROLASE FAM (UBIQUITIN THIOLESTERAS	0.0003	

		Nearest Neighbor	->	Nearest Neighbor			
SEQ	ACCESSIO	(BlastN vs. Genbani		(Blast)	X vs. Non-Redundant		
ID	ACCESSIO.	DESCRIPTION	P VALUE	ACCESSIC	DESCRIPTION	P VALU	
					E FAM)		
4703	D44598	Saccharomyces cerevisiae chromosome VI phage 4121	1e-009	3947877	(AL034382) putative mitosis and maintenance of ploidy protein [Schizosaccharom yces pombe]	6e-061	
4704	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	6e-006	<none></none>	<none></none>	<none></none>	
4705	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	le-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	6.4	
4706	AB001899	Homo sapiens PACE4 gene, exon 2	4e-012	3860844	(AJ235271) NADH DEHYDROGENA SE I CHAIN L	3.4	
4707	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4708	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-008	<none></none>	<none></none>	<none></none>	
4709	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-009	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	6.40E+00	
4710	L39064	Homo sapiens interleukin 9 receptor precursor (IL9R) gene, complete cds	le-006	4063042	(AF068065) GP900; mucin-like glycoprotein	le-006	
4711	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds	0.0002	331908	(K02714) envelope polyprotein [Friend murine leukemia virus]	8	

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4712	AF065249	Entodinium caudatum 14-3-3 protein mRNA, partial cds	1	<none></none>	<none></none>	<none></none>		
4713	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-013	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	7.9		
4714	<none></none>	<none></none>	<none></none>	186396	(M94131) mucin [Homo sapiens]	2.5		
4715	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-009	<none></none>	<none></none>	<none></none>		
4716	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4717	Z56314	H.sapiens CpG DNA, clone 10h10, reverse read cpg10h10.rt1a.	4e-012	2444024	(U77782) N- methyl-D- aspartate receptor 2C subunit precursor [Homo sapiens]	9.8		
4718	D55696	Human mRNA for cysteine protease, complete cds	e-113	2842759	LEGUMAIN PRECURSOR (ASPARAGINYL ENDOPEPTIDAS E) >gi 1743266 gnl PI D e286211 (Y09862) legumain [Homo sapiens]	1e-006		
4719	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	9e-008	<none></none>	<none></none>	<none></none>		
4720	D63480	Human mRNA for KIAA0146 gene, partial cds	0	1469874	(D63480) The KIAA0146 gene product is novel. [Homo sapiens]	2e-079		
4721		Rice dwarf virus genomic RNA, segment 2, complete sequence	1.3	<none></none>	<none></none>	<none></none>		
4722	<none></none>	<none></none>	<none></none>		(AL033534) serine-rich protein	2.7		
			529		serme-rich protein			

		Nearest Neighbor		1	Nearest Neighbor		
SEC	ACCESSIO	BlastN vs. Genbank		(BlastX vs. Non-Redundant Proteins)			
lD			P VALUI	ACCESSIO	N DESCRIPTION		
4723	3 AL010156	Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 3-87, complete sequence	0.77	<none></none>	<none></none>	<none.< td=""></none.<>	
4724			2	119110	EBNA-1 NUCLEAR PROTEIN herpesvirus 4 (strain B95-8) >gi 1334880 (V01555) BKRF1 encodes EBNA-1 protein, latent cycle gene. [Human herpesvirus 4]	8e-007	
4725	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	ALONIE	
4727	D38616	Human mRNA for phosphorylase kinase alpha subunit, complete cds	3.5	3522948	(AC004411) hypothetical protein [Arabidopsis	<none> 0.18</none>	
4728	D38616	Human mRNA for phosphorylase kinase alpha subunit, complete	3.5	3522948	thaliana] (AC004411) hypothetical protein [Arabidopsis thaliana]	0.18	
4729 4730	Z11808	T.glis interphotorecepto r retinoid binding protein gene, exon 1	1.6	<none></none>	<none></none>	<none></none>	
	AF065988	Homo sapiens keratocan gene, complete cds	1.4	<none></none>	<none></none>	<none></none>	
4731	X60026	M.domesticus small nuclear 4.5 S RNA gene	0.0003	2853301	(AF007194) mucin [Homo sapiens]	5.5	
4732		Mouse 56 kdal protein mRNA from an interferon activated gene, exon 1, 5' end.	0.3		HYPOTHETICAL PROTEIN UL11 RL11 FAMILY [Human cytomegalovirus]	2.3	

		Nearest Neighbor	<del></del>	I	Nearest Neighbor		
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
4733	D55696	Human mRNA for cysteine protease, complete cds	e-113	2842759	LEGUMAIN PRECURSOR (ASPARAGINYL ENDOPEPTIDAS E) >gi 1743266 gnl PI D e286211 (Y09862) legumain [Homo sapiens]	1e-006	
4734	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4735	<none></none>	<none></none>	<none></none>	322647	glycine-rich protein GRP22 - rape >gi 17821	3e-021	
4736	<none></none>	<none></none>	<none></none>	188864	(M74027) mucin [Homo sapiens]	0.002	
4737	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>	
4738	AB018270	Homo sapiens mRNA for KIAA0727 protein, partial cds	0	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	1.8	
4739	AB018270	Homo sapiens mRNA for KIAA0727 protein, partial cds	0	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	1.8	
4740		Plasmodium falciparum chromosome 2, section 19 of 73 of the complete sequence	0.25	<none></none>	<none></none>	<none></none>	
4741		Plasmodium falciparum chromosome 2, section 19 of 73 of the complete sequence	0.25	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		T	Nearest Neighbor			
SEQ	A COESSIO	BlastN vs. Genbank	,	(BlastX	(BlastX vs. Non-Redundant Proteins)			
ID	ACCESSIO	DESCRIPTION	P VALUE	ACCESSIO	N DESCRIPTION	P VALUE		
4742	X55038	Mouse mCENP-B gene for centromere autoantigen B	0.001	3879362	(Z81113) similar to DnaJ, prokaryotic heat shock protein, Zinc finger, C2H2 type; cDNA EST yk290e12.5 comes from this gene; cDNA EST yk290e12.3 comes from this gene; cDNA EST yk447h4.5 comes from this gene; cDNA EST			
4743	AF054024	Rattus norvegicus polymorphic marker D9UIA2 sequence	0.62	<none></none>	yk474e4 <none></none>	<none></none>		
4744	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0005	<none></none>	<none></none>	<none></none>		
4745	Z11808	T.glis interphotorecepto r retinoid binding protein gene, exon 1	1.6	<none></none>	<none></none>	<none></none>		
4746	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4747	AF047470	Homo sapiens malate dehydrogenase precursor complete cds	le-019	2995307	(AL022268) putative aminotransferase	0.12		
4748	AF029890	Homo sapiens hepatitis B virus X interacting protein (XIP) mRNA, complete cds	e-161	2745883	(AF029890) hepatitis B virus X interacting protein [Homo sapiens]	2e-044		

	]	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE		
4750	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-008	1723019	HYPOTHETICAL 29.6 KD PROTEIN CY251.12C >gi 1405764 gnl PI D e249453 (Z74410) hypothetical protein Rv0093c [Mycobacterium tuberculosis]			
4751	M37583	Human histone (H2A.Z) mRNA, complete cds.		121994	HISTONE H2A.Z  >gi 89608 pir  S03 642 histone  H2A.Z - bovine  >gi 92380 pir  S03 644 histone  H2A.Z - rat  >gi 106267 pir  A3 5881 histone  H2A.Z - human  sapiens] >gi 57808  (X52316) histone  H2A.Z (AA 1-  127) taurus]  >gi 184060  (M37583) histone  (H2A.Z) [Homo  sapien	1e-055		
4752		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-014	<none></none>	<none></none>	<none></none>		
4753		pWE15 cosmid vector DNA	7e-079	987050	(X65335) lacZ gene product [unidentified cloning vector]	le-013		
4754		Human mRNA for KIAA0068 gene, partial cds	e-169	<none></none>	<none></none>	<none></none>		
4755		Pangasianodon gigas growth hormone (GH) mRNA, complete cds.	1.5		(D00322) polyprotein [Tomato black ring virus]	5.8		

	]	Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)			s. Non-Redundant F	Proteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4756	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0002	1477565	(U50078) p619 [Homo sapiens]	8.9		
4757	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	0.0002	1477565	(U50078) p619 [Homo sapiens]	8.9		
4758	U47414	Human cyclin G2 mRNA, complete cds	e-116	<none></none>	<none></none>	<none></none>		
4759	AB014560	Homo sapiens mRNA for KIAA0660 protein, complete cds	e-173	<none></none>	<none></none>	<none></none>		
4760	L35664	Homo sapiens (subclone H8 8_f5 from P1 35 H5 C8) DNA sequence.	1e-030	2072966	(U93570) p40 [Homo sapiens]	0.001		
4761	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-013	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.1		
4762	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-013	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.1		
4763	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-012	<none></none>	<none></none>	<none></none>		
4764		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-012	<none></none>	<none></none>	<none></none>		
4765		Mouse low affinity IgE receptor (FceRII) gene sequence.	1e-006		mucin 2 precursor, intestinal - human	0.0003		

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P	roteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
4766	D14034	Human gene for Zn-alpha2-glycoprotein, complete cds	3e-008	119379	RETROVIRUS- RELATED ENV POLYPROTEIN	6e-007		
4767	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4768	M61185	Bovine glutamic acid-rich protein mRNA, complete cds.	0.01	2781362	(AC003113) F24O1.18 [Arabidopsis thaliana]	1.1		
4769	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
4770	Z62012	H.sapiens CpG DNA, clone 61g4, reverse read cpg61g4.rt1a	0.076	1582765	YFW1 gene [Saccharomyces cerevisiae]	2.9		
4771	M29065	Human hnRNP A2 protein mRNA.	0	4049652	(AF063866) ORF MSV017 hypothetical protein [Melanoplus sanguinipes entomopoxvirus]	5,9		
4772	D12525	Homo sapiens cytochrome P450IA1 gene, 3'flanking region	6e-016	728837	!!!! ALU SUBFAMILY SQ WARNING ENTRY	9.6		
4773	M16660	Human 90-kDa heat-shock protein gene, cDNA, complete cds.	e-109	2119731	HSP90 - mouse (fragment) protein {C-terminal} [mice, heart, Peptide Partial, 194 aa] [Mus sp.]	1e-023		
4774	AF043105	Homo sapiens glutathione S- transferase mu 3	9e-020	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.63		
4775	U43374	Human normal keratinocyte mRNA.	0		FINQ PROTEIN >gi 73172 pir  BV ECFQ finQ protein - Escherichia coli plasmid R820a	9		
4776	Ü00684	Human unknown mRNA.	2e-014		(AB002361) KIAA0363 [Homo sapiens]	6.6		

WO 99/38972

		Nearest Neighbor			Nearest Neighbor		
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4777	M22299	Human T-plastin polypeptide mRNA, complete cds, clone p4. > :: gb I08151  Sequence 1 from Patent EP 0345726	4e-008	<none></none>	<none></none>	<none></none>	
4778	M95623	Homo sapiens hydroxymethylbil ane synthase gene, complete cds.	3e-018	3002527	(AF010144) neuronal thread protein AD7c- NTP [Homo sapiens]	0.52	
4779	X52329	pBluescript II KS(-) vector DNA, phagemid excised from lambda ZAPII	0	2117615	catalase - Campylobacter jejuni	2e-009	
4780	X52329	pBluescript II KS(-) vector DNA, phagemid excised from lambda ZAPII	0	2117615	catalase - Campylobacter jejuni	2e-009	
4781	AF061034	Homo sapiens FIP2 alternatively translated mRNA, complete cds	0	3127084	(AF061034) FIP2 [Homo sapiens]	9e-089	
4782	Z64776	H.sapiens CpG DNA, clone 167d8, forward read cpg167d8.ft1b.	0.0002	1777782	(U52513) ISG family member [Homo sapiens]	1.8	
4783		Acyrthosiphon kondoi endosymbiont DNA, S10 and spc ribosomal protein gene operons, complete and partial cds	1.1		cell division control protein CDC37 homolog splice form 1 - chicken	4e-005	
4784		Homo sapiens T- plastin gene, last exon (16).	0	2506254	T-PLASTIN	3e-018	
4785		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	8e-007	<none></none>	<none></none>	<none></none>	

	<u> </u>	Nearest Neighbor		Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P	roteins)	
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
ID							
4786	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-006	3877438	(Z72510) similar to G-protein coupled receptor [Caenorhabditis elegans]	2	
4787	L38250	Mycoplasma penetrans p35 lipoprotein and p33 lipoprotein genes, complete cds	0.041	<none></none>	<none></none>	<none></none>	
4788	J03537	Human ribosomal protein S6 mRNA, complete cds.	e-138	133978	40S RIBOSOMAL PROTEIN S6 protein S6 - rat >gi 70933 pir  R3 MS6 ribosomal protein S6 - mouse >gi 319910 pir  R3 HU6 ribosomal protein S6 - human >gi 36148 (X67309) ribosomal protein S6 [Homo sapiens] >gi 54010 (Y00348) ribosomal protein S6 [Mus musculus] >g	3e-033	
4789		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	2.6	
4790		Homo sapiens midline 1 fetal kidney isoform 3	0.41	<none></none>	<none></none>	<none></none>	
4791		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	3e-010		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.2	

		Nearest Neighbor		<del></del>	Nearest Neighbor		
	(H	BlastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEC	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4792	2 S60885	LYAR=cell	2e-026	2498524	CELL GROWTH	0.43	
		growth regulating		2490324	REGULATING	0.43	
		nucleolar protein	ļ		NUCLEOLAR	1	
			ļ		PROTEIN	-	
1					>gi 423488 pir  A4		
					0683 cell growth		
		1		ĺ	regulating		
Ì	ľ				nucleolar protein LYAR - mouse		
ł					>gi 300372 bbs 13		
4703					1782		
4793 4794	_1	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
7/24	02000/	Human zinc finger containing	3e-027	1731444	ZINC FINGER	3e-008	
		protein ZNF157			PROTEIN 84		
		protein Zi (15)			(ZINC FINGER PROTEIN HPF2)		
					>gi 1020145		
					(M27878) DNA		
4795	A F00 ( 100				binding protein		
4/93	AF086438	Homo sapiens	0.0002	<none></none>	<none></none>	<none></none>	
		full length insert cDNA clone	1				
		ZD80G11					
4796	L28997	Homo sapiens	3e-006	<none></none>	<none></none>	<none></none>	
	ĺ	ARL1 mRNA,		i			
4797	U95094	complete cds Xenopus laevis	2 000	100000			
'''	093094	XL-INCENP	3e-008	1280126	(U55375)	2e-012	
		(XL-INCENP)			K03E6.4 [Caenorhabditis	1	
		mRNA, complete	l		elegans]		
1500		cds			o loguing j		
4798	AE001415	Plasmodium	0.015	<none></none>	<none></none>	<none></none>	
		falciparum chromosome 2,				l	
		section 52 of 73					
		of the complete					
		sequence	. [				
4799		Human mRNA	0	729821	EUKARYOTIC	2e-010	
	1	for KIAA0111		F.	INITIATION	010	
		gene, complete			FACTOR 4A-		
	]	cds		1	LIKE NUK-34	1	
					(HA0659)		
	[				>gi 631472 pir  S4 5142 translation		
ŀ	ĺ			The state of the s	nitiation factor	i i	
					eIF-4A2 homolog		
	ľ				human		
					gi 496902		

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4800	M76425	H.sapiens intron 2 Alu repetitive element.	0.014	<none></none>	<none></none>	<none></none>	
4801	X87212	H.sapiens mRNA for cathepsin C	0	1582221	prepro-cathepsin C [Homo sapiens]	1e-052	
4802	D80005	Human mRNA for KIAA0183 gene, partial cds	e-114	1136426	(D80005) KIAA0183 [Homo sapiens]	7e-025	
4803	AF026029	Homo sapiens poly(A) binding protein II (PABP2) gene, complete cds	2e-055	<none></none>	<none></none>	<none></none>	
4804	Z68322	Human DNA sequence from cosmid L79F5, Huntington's Disease Region, chromosome 4p16.3	2e-016	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.6	
4805	M63180	Human threonyl- tRNA synthetase mRNA, complete cds	. 0	135177	THREONYL- TRNA SYNTHETASE, CYTOPLASMIC (THREONINE TRNA LIGASE) (THRRS) 6.1.1.3) - human >gi 1464742 (M63180) threonyl-tRNA synthetase [Homo sapiens]	5e-070	
4806	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3.7	<none></none>	<none></none>	<none></none>	
4807		Human mRNA for hepatoma- derived growth factor, complete cds	3e-010	<none></none>	<none></none>	<none></none>	
4808		Homo sapiens full length insert cDNA clone ZB82D09	e-148	1465826	(U64856) weak similarity to TPR domains [Caenorhabditis elegans]	2e-014	

		Nearest Neighbor		<del></del>	Nogroot Ni-1-1-1		
	(1	BlastN vs. Genbank	)	Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE	
4809	9 U95094						
700	093094	Xenopus laevis XL-INCENP	4e-012	2072296	(U95098) mitotic		
	ļ	(XL-INCENP)	-		phosphoprotein 4 [Xenopus laevis]		
]		mRNA, complete		Ĭ	[Xellopus laevis]	<b>i</b>	
4810	1 124651	cds				[	
4010	M34651	Pseudorabies virus with	0.4	417134	HEPATOCYTE	0.047	
		upstream and			NUCLEAR		
		downsteam			FACTOR 3-BET	A	
40.5		sequences.			noi vegicus]		
4811	U95094	Xenopus laevis	3e-010	1353390	(U34998) Rad9	3e-010	
		XL-INCENP (XL-INCENP)			[Coprinus		
		mRNA, complete	}		cinereus]		
10.5		cds					
4812	M94314	Homo sapiens	1e-064	<none></none>	<none></none>	<none></none>	
		ribosomal protein L30 mRNA,					
		complete cds					
4813	X95276	P.falciparum	0.001	<none></none>	<none></none>	<none></none>	
		complete gene			THORIES	NONE	
	ĺ	map of plastid- like DNA (IR-B)			1		
4814	X12716	Human	5e-024	<none></none>	A IONTE		
1		Retrovirus	30-024	\NONE>	<none></none>	<none></none>	
		mRNA for LTR					
4815	J03537	(clone cH6) Human ribosomal					
1013	303337	protein S6	e-138	133978	40S	3e-033	
1 1		mRNA, complete			RIBOSOMAL PROTEIN S6		
		cds.			protein S6 - rat	j	
		1			>gi 70933 pir  R3		
					MS6 ribosomal		
			İ		protein S6 - mouse >gi 319910 pir  R3		
	İ	}			HU6 ribosomal		
	]			[	protein S6 -		
	1				human >gi 36148		
	l		1		(X67309) ribosomal protein		
					S6 [Homo sapiens]		
				:	>gi 54010		
			ĺ		(Y00348)		
					ribosomal protein S6 [Mus		
1016	1107				nusculus] >g		
4816	<none></none>	<none> &lt;</none>	NONE>	<none></none>	<none></none>	<none></none>	

	1	Nearest Neighbor	<del></del>	Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4817	U61945	Caenorhabditis elegans cosmid C49C8.	1.8	<none></none>	<none></none>	<none></none>	
4818	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4819	M20020	Human ribosomal protein S6 mRNA, complete cds.	7e-072	225901	ribosomal protein S6 [Rattus norvegicus]	2e-015	
4820	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.058	<none></none>	<none></none>	<none></none>	
4821	AL023973	Human DNA sequence from clone 1033E15 on chromosome 22q13.1-13.2. Contains part of a novel gene, ESTs and a GSS, complete sequence [Homo sapiens]	3e-009	2352260	(AF000949) keratin [Canis familiaris]	0.037	
4822	M37430	Pea Chloroplast 4.5S, 5S, 16S and 23S mRNA.	4.7	4093193	(AF106583) unknown [Caenorhabditis elegans]	4.8	
4823	M63488	Human replication protein A 70kDa subunit mRNA complete cds.	0	1350579	REPLICATION PROTEIN A 70 KD DNA- BINDING SUBUNIT (RP-A) (RF-A) (REPLICATION FACTOR-A PROTEIN 1) (SINGLE- STRANDED DNA-BINDING PROTEIN) subunit [Homo sapiens]	8e-079	
4824	X83791	C.tentans BR1 gene	1.2	<none></none>	<none></none>	<none></none>	
4825		Methanococcus jannaschii section 118 of 150 of the complete genome	4	<none></none>	<none></none>	<none></none>	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P	roteins)	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4826	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds		<none></none>	<none></none>	<none></none>	
4827	X65319	Cloning vector pCAT-Enhancer	2e-077	987050	(X65335) lacZ gene product [unidentified cloning vector]	2e-011	
4828	X03558	Human mRNA for elongation factor 1 alpha subunit	0	1169475	ELONGATION FACTOR 1- ALPHA 1	e-109	
4829	X76538	H.sapiens Mpv17 mRNA	6.00E-98	730059	MPV17 PROTEIN >gi 631208 pir  S4 5343 glomerulosclerosis protein Mpv17 - human	3e-010	
4830	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4831	<none></none>	<none></none>	<none></none>	2078483	(U43200) antifreeze glycopeptide AFGP polyprotein precursor [Boreogadus saida]	0.014	
4832	X83617	H.sapiens mRNA for RanBP1	3.4	3924670	(AC004990) supported by Genscan and several ESTs: C83049	3e-040	
4833	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-011	3024677	ISOLEUCYL- TRNA SYNTHETASE isoleucyl-tRNA synthetase (ileS) [Helicobacter pylori]	0.005	
4834		Human calcyclin gene, complete cds.	1e-043	<none></none>	<none></none>	<none></none>	
4835		Homo sapiens splicing factor (CC1.3) mRNA, complete cds.	0.00E+00	<none></none>	<none></none>	<none></none>	
4836		Human mRNA for integrin alpha 6	2e-099		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5	

	ľ	Nearest Neighbor	<u> </u>	Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4837	Z57594	H.sapiens CpG DNA, clone 186c5, reverse read cpg186c5.rt1b.	1.4	<none></none>	<none></none>	<none></none>	
4838	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4839	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-007	<none></none>	<none></none>	<none></none>	
4840	Y00371	Human hsc70 gene for 71 kd heat shock cognate protein > :: gb AR013986 AR 013986 Sequence 15 from patent US 5773245	e-145	987050	(X65335) lacZ gene product [unidentified cloning vector]	7e-011	
4841	AF074991	Homo sapiens full length insert cDNA YH88A03	0.0005	<none></none>	<none></none>	<none></none>	
4842	AF055030	Homo sapiens clone 24538 mRNA sequence	2e-049	2842711	ZINC-FINGER PROTEIN UBI- D4 sapiens]	2e-016	
4843	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	1353531	(U38906) ORF14 [Bacteriophage rlt]	7.1	
4844	Z57588	H.sapiens CpG DNA, clone 186b7, reverse read cpg186b7.rt1b.	0.41	<none></none>	<none></none>	<none></none>	
4845	X65319	Cloning vector pCAT-Enhancer	9e-051	987050	(X65335) lacZ gene product [unidentified cloning vector]	0.37	
4846	X78411	B.pasteurii ureA, ureB and ureC genes.	3.1	<none></none>	<none></none>	<none></none>	
4847	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	3e-009	2224697	(AB002376) KIAA0378 [Homo sapiens]	5e-008	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4848	U78729	Homo sapiens mad protein homolog Smad2 gene, exon 6	4.7	<none></none>	<none></none>	<none></none>	
4849	D55696	Human mRNA for cysteine protease, complete cds	0	2842759	LEGUMAIN PRECURSOR (ASPARAGINYL ENDOPEPTIDAS E) >gi 1743266 gnl PI D e286211 (Y09862) legumain [Homo sapiens]	3e-030	
4850	U95097	Xenopus laevis mitotic phosphoprotein 43 mRNA, partial cds	0.43	3005603	(AF053141) progesterone receptor [Equus caballus]	2.2	
4851	U46118	Rattus norvegicus cytochrome P450 3A9 mRNA, complete cds	0.38	<none></none>	<none></none>	<none></none>	
4852	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-006	2495726	HYPOTHETICAL PROTEIN KIAA0254 sapiens]	1e-005	
4853	L10911	Homo sapiens splicing factor (CC1.4) mRNA, complete cds.	e-117	<none></none>	<none></none>	<none></none>	
4854	D00132	Acremonium chrysogenum ARS DNA fragment	1.7		SALIVARY PROLINE-RICH PROTEIN PRECURSOR (CLONE CP7) [CONTAINS: BASIC PEPTIDE P-F] glycoprotein precursor PRB2 - human (fragment) precursor [Homo sapiens]	0.45	
4855		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.9	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4856	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4857	AC002186	Homo sapiens (subclone 1_f12 from P1 H115) DNA sequence	1e-041	2072966	(U93570) p40 [Homo sapiens]	4e-013	
4858	AF053520	Homo sapiens allele 12 fragile site locus	0.61	<none></none>	<none></none>	<none></none>	
4859	X65319	Cloning vector pCAT-Enhancer	2e-077	987050	(X65335) lacZ gene product [unidentified cloning vector]	2e-011	
4860	AJ005866	Homo sapiens mRNA for putative Sqv-7- like protein, partial	e-179	4008517	(AJ005866) Sqv- 7-like protein [Homo sapiens]	3e-049	
4861	AF052165	Homo sapiens clone 24522 mRNA sequence	4e-072	2065177	(Y12790) Supt5h protein [Homo sapiens] sapiens]	le-021	
4862	M90058	Human serglycin gene, exons 1,2, and 3.	0.005	<none></none>	<none></none>	<none></none>	
4863	· U17662	Human neurofibromatosis 1 (NF1) gene, exons 4c and 5 and partial cds	1.3	<none></none>	<none></none>	<none></none>	
4864	U64453	Human ELK1 pseudogene (ELK2) and immunoglobulin heavy chain gamma pseudogene (IGHGP)	3e-018	<none></none>	<none></none>	<none></none>	
4865	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>	
4866	X16826	Drosophila melanogaster DNA for 60C beta tubulin gene making beta 3 tubulin isoform	2.2	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor	••	<del></del>	Nearest Neighbor	•	
		lastN vs. Genbank	<b>)</b>	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE	
4867	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-009	<none></none>	<none></none>	<none></none>	
4868	X65319	Cloning vector pCAT-Enhancer	8e-081	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-015	
4869	AL031322	S.pombe chromosome II cosmid c17D1	0.38	<none></none>	<none></none>	<none></none>	
4870	M11560	Human aldolase A mRNA, complete cds.	0	553861	(J05517) aldolase A [Mus musculus]	2e-066	
4871	U28831	Human protein immuno-reactive with anti-PTH polyclonal antibodies mRNA, partial cds. > :: gb I40055 I40055 Sequence 1 from patent US 5618695	e-106	896065	(U28831) protein that is immuno- reactive with anti- PTH polyclonal antibodies [Homo sapiens]	1e-014	
4872	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>	
4873	<none></none>	<none></none>	<none></none>		mucin, tracheal (AMN-22) - human (fragment)	4e-009	
4874		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-011	<none></none>	<none></none>	<none></none>	
4875		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-011	<none></none>	<none></none>	<none></none>	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID							
4876	D85752	Enterococcus faecalis plasmid pPD1 bacA, bacB, bacC, bacD, bacE, bacF, bacG, bacH and bacI genes, complete cds	0.042	1123087	(U42436) C49H3.3 gene product [Caenorhabditis elegans]	0.001	
4877	AC001443	Homo sapiens (subclone 2_f10 from BAC 2913	1e-033	2072961	(U93568) putative p150 [Homo sapiens]	3e-007	
4878	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-012	<none></none>	<none></none>	<none></none>	
4879	S81433	heme oxygenase- 2 {5' region, alternative splicing}	4.2	<none></none>	<none></none>	<none></none>	
4880	M34312	S.cerevisiae telomeric sequence DNA, clone YLP108CA-4-ii.	5e-010	188864	(M74027) mucin [Homo sapiens]	2e-007	
4881	AF075079	Homo sapiens full length insert cDNA YQ80A08	1.00E-12	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	4.6	
4882	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.015	3176689	(AC003671) Contains similarity to ubiquitin carboxyl-terminal hydrolase 14 gb Z35927 from S. cerevisiae. [Arabidopsis thaliana]	4.5	
4883	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.12	<none></none>	<none></none>	<none></none>	
4884	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-007	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor		Nearest Neighbor			
CEC	(F	BlastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION		P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4885	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7e-007	<none></none>	<none></none>	<none></none>	
4886	U74586	Rattus norvegicus double-stranded RNA specific adenosine deaminase (RED2) mRNA, complete cds	3.5	2828280	(AL021687) putative protein [Arabidopsis thaliana] >gi 2832633 gnl Pl D e1249651 (AL021711) putative protein [Arabidopsis thaliana]	4e-008	
4887	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	5e-014	2497599	LAMININ BETA- 2 CHAIN PRECURSOR	5.4	
4888		House mouse; Musculus domesticus mRNA for membrane glycoprotein, complete cds > :: dbj E12950 E129 50 cDNA GA3- 43 encoding novel polypeptide which appear when differentiate from embryo-tumor cell P19 to nerve cell	7e-017	1545807	(D78572) membrane glycoprotein [Mus musculus]	1.2	
4889		Rattus norvegicus carboxypeptidase E (CPE) gene, exon 1.	3.2	<none></none>	<none></none>	<none></none>	
4890		Homo sapiens SOX9 mRNA. > :: gb G28593 G285 93 human STS SHGC-35378.	e-132	<none></none>	<none></none>	<none></none>	

£3383838383		Nonest Naista	••	Nearest Neighbor			
		Nearest Neighbor		Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
CEA	ACCESSION	lastN vs. Genbank)	P VALUE				
SEQ ID		DESCRIPTION				P VALUE	
4891	M30802	Human aromatase cytochrome P-450 gene, exon 8.	3.3	<none></none>	<none></none>	<none></none>	
4892	M28699	Homo sapiens nucleolar phosphoprotein B23 (NPM1) mRNA, complete cds.	5e-088	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.2	
4893	M89955	Human 5-HT1D- type serotonin receptor gene, complete cds.	0	2494923	5- HYDROXYTRYP TAMINE 1D RECEPTOR 1D [Cavia porcellus]	3e-008	
4894	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
4895	AF004230	Homo sapiens monocyte/macrop hage Ig-related receptor MIR-7 (MIR cl-7) mRNA, complete cds	2e-012	<none></none>	<none></none>	<none></none>	
4896	D50463	Mouse SDR1 mRNA, complete cds	0	1806276	(X99337) glycoprotein 55 [Rattus norvegicus]	e-103	
4897	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4898		Homo sapiens mRNA for KIAA0697 protein, partial cds	2e-067	3327208	(AB014597) KIAA0697 protein [Homo sapiens]	9e-051	
4899	AF047598	Homo sapiens origin recognition complex subunit 4 (ORC4L) mRNA, complete cds	e-110		(AF022108) putative replication initiator origin recognition complex subunit Orc4Lp [Homo sapiens] subunit 4; Orc4p [Homo sapiens]	7e-005	

		Nearest Neighbor		T	Nonest Mainly			
	(I	BlastN vs. Genbank	)	(RlactY	Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	PVALUE	ACCESSION	V DESCRIPTION	P VALUE		
ID					Description	IFVALUE		
4900	U95102	Xenopus laevis	7e-007	<none></none>	<none></none>	<none></none>		
j		mitotic		ļ				
Ì	1	phosphoprotein						
1		90 mRNA,						
4901	U95102	complete cds	<u> </u>					
4501	093102	Xenopus laevis	7e-007	<none></none>	<none></none>	<none></none>		
		phosphoprotein		ľ				
		90 mRNA,				}		
		complete cds						
4902	U22325	Mus musculus	1.20E+00	<none></none>	<none></none>	Alour		
1		faciogenital	1.202.00	VIVOIVE	NONE	<none></none>		
1		dysplasis (Fgd1)						
		mRNA, complete						
1000		cds.						
4903	U22325	Mus musculus	1.20E+00	<none></none>	<none></none>	<none></none>		
		faciogenital						
		dysplasis (Fgd1)		j				
		mRNA, complete cds.						
4904	U22325	Mus musculus	1.20E+00	Alones	NONE			
	022323	faciogenital	1.20E+00	<none></none>	<none></none>	<none></none>		
		dysplasis (Fgd1)						
		mRNA, complete			}			
		cds.						
4905	U26162	Human myosin	0	228542	myosin:SUBUNIT	3e-068		
1		regulatory light	,		=regulatory light	50 000		
		chain mRNA,			chain			
4906	<none></none>	complete cds.				<b>[</b>		
4907	U95094	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
'''	093094	Xenopus laevis XL-INCENP	1e-011	3822225	(AF079183)	4e-006		
		(XL-INCENP)			RING-H2 finger			
		mRNA, complete			protein RHG1a			
	į	cds			[Arabidopsis thaliana]			
4908	X65319	Cloning vector	1e-075	987050	(X65335) lacZ	8e-019		
		pCAT-Enhancer			gene product	06-019		
					[unidentified			
1000					cloning vector]			
4909		Arabidopsis	0.62	<none></none>	<none></none>	<none></none>		
		thaliana mRNA			Ì			
		for DEAD box						
		RNA helicase, RH28			ľ			
		14140				i		

	1	Nearest Neighbor		Nearest Neighbor			
	(B)	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4910	U48364	Mus musculus muscle-specific transcriptional activator alpha- NAC gp220 (Naca) mRNA, complete cds	0.2	<none></none>	<none></none>	<none></none>	
4911	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4912	J03750	Mouse single stranded DNA binding protein p9 mRNA, complete cds.	e-135	1709514	ACTIVATED RNA POLYMERASE II TRANSCRIPTIO NAL COACTIVATOR P15 (PC4) (P14) cofactor p15 - human >gi 531395 (U12979) PC4 [Homo sapiens] >gi 619161 (X79805) PC4, p15 [Homo sapiens]	1e-020	
4913	U70263	Border disease virus strain BD31, complete genome	3.2	<none></none>	<none></none>	<none></none>	
4914	AB012086	Canine herpesvirus gene for immediate- early protein, complete cds	0.37	<none></none>	<none></none>	<none></none>	
4915	X05908	Human mRNA for lipocortin	e-162	113944	ANNEXIN I (LIPOCORTIN I) (CALPACTIN II) (CHROMOBINDI N 9) (P35) (PHOSPHOLIPAS E A2 INHIBITORY PROTEIN) >gi 71756 pir  LU HU annexin I - human >gi 34388	9e-041	
4916	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4917	U90911	Human clone 23652 mRNA sequence	0.13	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor			Nearest Neighbor	·
	(E	BlastN vs. Genbank)		(BlastX	vs. Non-Redundant	Proteins)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
4918	U95 <b>0</b> 94	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	8e-007	<none></none>	<none></none>	<none></none>
4919	X57830	H.sapiens serotonin 5-HT2 receptor mRNA > :: gb G28536 G285 36 human STS SHGC-31576.	4e-011	<none></none>	<none></none>	<none></none>
4920	U67559	Methanococcus jannaschii section 101 of 150 of the complete genome	3.5	<none></none>	<none></none>	<none></none>
4921	M20020	Human ribosomal protein S6 mRNA, complete cds.	0	133978	40S RIBOSOMAL PROTEIN S6 protein S6 - rat >gi 70933 pir  R3 MS6 ribosomal protein S6 - mouse >gi 319910 pir  R3 HU6 ribosomal protein S6 - human >gi 36148 (X67309) ribosomal protein S6 [Homo sapiens] >gi 54010 (Y00348) ribosomal protein S6 [Mus musculus] >g	2e-072
4922		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-006	<none></none>	<none></none>	<none></none>
4923		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	6e-006	<none></none>	<none></none>	<none></none>
4924		Plasmid vector pHM2 petalactamase gene	e-160		(X65335) lacZ gene product [unidentified cloning vector]	3e-015

	Nearest Neighbor			Nearest Neighbor			
CF 2		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4925	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4926	U95098	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial cds		<none></none>	<none></none>	<none></none>	
4927	D50369	Homo sapiens mRNA for low molecular mass ubiquinonebinding protein, complete cds	e-152	3024781	UBIQUINOL-CYTOCHROME C REDUCTASE COMPLEX UBIQUINONE-BINDING PROTEIN QP-C PROTEIN) (COMPLEX III SUBUNIT VII) >gi 2605590 (D50369) low molecular mass ubiquinone- binding protein [Homo sapiens]	6e-023	
4928	M63391	Human desmin gene, complete cds.	4e-013	<none></none>	<none></none>	<none></none>	
4929	D38417	Mouse mRNA for arylhydrocarbon receptor, complete cds	e-110	<none></none>	<none></none>	<none></none>	
4930	U38253	Rattus norvegicus initiation factor eIF-2B gamma subunit (eIF-2B gamma) mRNA, complete cds	e-175	2494312	TRANSLATION INITIATION FACTOR EIF-2B GAMMA SUBUNIT (EIF- 2B GDP-GTP EXCHANGE FACTOR) subunit [Rattus norvegicus]	4e-040	
4931		Mouse mRNA for arylhydrocarbon receptor, complete cds	e-110	<none></none>	<none></none>	<none></none>	
4932		Mus musculus alpha 1 type I collagen gene, partial cds and 3' flanking region.	1.2	<none></none>	<none></none>	<none></none>	
4933	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor	··-	<del></del>	Normal N. 11	
		lastN vs. Genbank)		(BlastV)	Nearest Neighbor s. Non-Redundant F	Donat 1 1 1
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	
ID				/ CCESSION	DESCRIPTION	P VALUE
4934	U86137	Mus musculus telomerase protein-1 mRNA, complete cds	1.70E-01	3327208	(AB014597) KIAA0697 protein [Homo sapiens]	9e-006
4935	\$57980	Crp1=cystatin- related protein-1 [rats, Genomic, 7673 nt]	0.041	<none></none>	<none></none>	<none></none>
4936	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
4937	AB012047	Arabidopsis thaliana gene for sulfate transporter, complete cds, clone:AST56	0.14	3915658	ATP- DEPENDENT RNA HELICASE A helicase II [Homo sapiens]	6.1
4938	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-007	<none></none>	<none></none>	<none></none>
4939	AB018374	Mus musculus GARP34 mRNA, complete cds	3e-037	<none></none>	<none></none>	<none></none>
4940		Campylobacter jejuni polysaccharide biosynthesis protein homolog gene, partial cds, galactosyl transferase homolog, UDP- galactose phosphate transferase homolog, acetyl transferase homolog and aminotransferase homolog gen	3e-005	<none></none>	<none></none>	<none></none>
4941	J04617	Human elongation factor EF-1-alpha gene, complete cds. > :: dbj E02629 E026 29 DNA of numan polypeptide chain elongation factor-	3e-090	<none></none>	<none></none>	<none></none>

	Nearest Neighbor			Nearest Neighbor			
	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
		l alpha					
4942	Z54349	H.sapiens MN/CA9 GENE	2e-007	<none></none>	<none></none>	<none></none>	
4943	AF077374	Homo sapiens small proline-rich protein (SPRR3) gene, exons 1, 2, and 3 and complete cds	1.3	<none></none>	<none></none>	<none></none>	
4944	X59 <b>8</b> 28	Human chromosome 22 flanking hypervariable simple repeat DNA (clone HZREP42)	0.0003	<none></none>	<none></none>	<none></none>	
4945	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1.00E-09	124180	TRANSCRIPTIO NAL REGULATOR IE63 human herpesvirus 1 (strain 17) herpesvirus 1] >gi 221713 (D00374) immediate early transcriptional modulating protein IE63 (gene UL54) herpesvirus 1]	5.8	
4946	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1.00E-09	124180	TRANSCRIPTIO NAL REGULATOR IE63 human herpesvirus 1 (strain 17) herpesvirus 1] >gi 221713 (D00374) immediate early transcriptional	5.8	

		Nearest Neighbor	<u> </u>	T	Name	·
	(F	BlastN vs. Genbank	`	(PlastV)	Nearest Neighbor	
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	vs. Non-Redundant P DESCRIPTION	
ID		Jacks How	TAREOL	ACCESSION	DESCRIPTION	P VALUE
				<u> </u>	modulating protein	
				İ	IE63 (gene UL54)	`İ
ļ					herpesvirus 1]	
			1	ŀ	1	
			İ		}	
1						
4947	V7((02					İ
4947	X76683	Plasmid vector	8e-092	987050	(X65335) lacZ	3e-015
		pHM2			gene product	
		betalactamase			[unidentified	
4948	NONE	gene			cloning vector]	
4949	<none> U95094</none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
14343	093094	Xenopus laevis XL-INCENP	2.00E-04	<none></none>	<none></none>	<none></none>
1	1	(XL-INCENP)	1			
		mRNA, complete	] ]			
		cds	] ]			
4950	X16972	Drosophila	1.20E-01	1362688		
		melanogaster	1.201-01	1302000	morphogen Xhh precursor - African	1.9
		cecropin gene	ł <b>I</b>		clawed frog	
		cluster	1 1		>gi 790938	j
			] [		(L39213)	
ĺ			i I		morphogen	1
<u></u>					[Xenopus laevis]	
4951	U12022	Human	0	2072296	(U95098) mitotic	5.9
		calmodulin			phosphoprotein 44	3.7
		(CALM1) gene,	1		[Xenopus laevis]	
		exons 2,3,4,5 and				
		6, and complete	[			
4952	3/56506	cds				
4932	X56536	Rabbit mRNA for	2.3	119110	EBNA-1	4e-018
		pH regulatory			NUCLEAR	
		protein (Na+/H+		i i	PROTEIN	
		exchanger),			herpesvirus 4	
		partial			(strain B95-8)	
				1	>gi 1334880	
	ļ				(V01555) BKRF1	j
	İ				encodes EBNA-1	
	ŀ		1		protein, latent	Ì
					cycle gene.	
			1		Human	
					nerpesvirus 4]	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)			s. Non-Redundant P	roteins)	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4953	AF037438	Homo sapiens short chain L-3- hydroxyacyl-CoA dehydrogenase (SCHAD) gene, complete cds	2e-006	<none></none>	<none></none>	<none></none>	
4954	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	4e-012	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	3.4	
4955	AB000467	Homo sapiens mRNA, partial cds, clone:RES4- 25	2e-012	<none></none>	<none></none>	<none></none>	
4956	U31525	Human glycogenin mRNA, complete cds	0	1707996	GLYCOGENIN >gi 2135280 pir  J C4695 glycogenin glucosyltransferas e (EC 2.4.1.186) - human	5e-042	
4957	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4958	AF003836	Mesocricetus auratus isopentenyl diphosphate:dime thylallyl diphosphate isomerase mRNA, complete cds	1.30E+00	<none></none>	<none></none>	<none></none>	
4959	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4960	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4961	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4.90E-02	<none></none>	<none></none>	<none></none>	
4962	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4.90E-02	<none></none>	<none></none>	<none></none>	
4963	L32537	Homo sapiens (clone XP6G6B) mRNA, partial EST.	5.00E-03	<none></none>	<none></none>	<none></none>	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank	)	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4964	L32537	Homo sapiens (clone XP6G6B) mRNA, partial EST.	5.00E-03	<none></none>	<none></none>	<none></none>	
4965	X63787	T.thermophila gene for snRNA U3-2	0.41	<none></none>	<none></none>	<none></none>	
4966	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4967	U27341	Bos taurus endothelin converting enzyme-2 Sequence 1 from patent US 5736376	7e-015	<none></none>	<none></none>	<none></none>	
4968	U35114	Human apolipoprotein E (APOE) gene, hepatic control region HCR-2	9e-005	<none></none>	<none></none>	<none></none>	
4969	M86374	Rat tropoelastin gene, intron 25 (partial).	0.13	<none></none>	<none></none>	<none></none>	
4970	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-007	<none></none>	<none></none>	<none></none>	
4971		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-007	<none></none>	<none></none>	<none></none>	
4972		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-007	<none></none>	<none></none>	<none></none>	
4973		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7.00E-07	<none></none>	<none></none>	<none></none>	
4974		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7.00E-07	<none></none>	<none></none>	<none></none>	

	1	Nearest Neighbor	<u>··</u>	Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4975	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	7.00E-07	<none></none>	<none></none>	<none></none>	
4976	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.005	2995290	(AL022268) putative transmembrane transport protein [Streptomyces coelicolor]	1.50E-02	
4977	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.005	2995290	(AL022268) putative transmembrane transport protein [Streptomyces coelicolor]	1.50E-02	
4978	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.005	2995290	(AL022268) putative transmembrane transport protein [Streptomyces coelicolor]	1.50E-02	
4979	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2.00E-05	2983512	(AE000718) putative protein [Aquifex aeolicus]	2.2	
4980	X56536	Rabbit mRNA for pH regulatory protein (Na+/H+ exchanger), partial	2.3	119110	EBNA-1 NUCLEAR PROTEIN herpesvirus 4 (strain B95-8) >gi 1334880 (V01555) BKRF1 encodes EBNA-1 protein, latent cycle gene. [Human herpesvirus 4]	4e-018	
4981	Z11508	A.thaliana rpl15 gene for plastid ribosomal protein CL15	5.00E-03	3283910	(AF070638) unknown [Homo sapiens]	2.5	
4982	X95834	H.sapiens DNA sequence surrounding NotI site, clone NRLA143D	7e-070		signal peptidase:SUBUN IT=12kD [Homo sapiens]	1e-043,	

		Nearest Neighbor	··		Name at NI-2 1.1	•	
	/D	lastN vs. Genbank)		Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	PVALUE			,	
ID			PVALUE	ACCESSION	DESCRIPTION	P VALUE	
4983	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	2e-007	4008081	(AF106835) putative DnaJ [Methylovorus sp. strain SS1]	3e-010	
4984	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4985	U43626	Human chromosome 15q11-q13 putative DNA replication origin in the gaminobutyric acid receptor b3 and a5 gene cluster	2e-018	2197085	(AF003535) ORF2-like protein [Homo sapiens]	0.0002	
4986	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4987	D21272	Rice mRNA for ADP-glucose pyrophosphorylas e	1.1	1708084	EXOGLUCANAS E B PRECURSOR 1,4-beta- cellobiosidase (EC 3.2.1.91) precursor - Cellulomonas fimi >gi 790698 (L38827) beta-1,4- cellobiohydrolase [Cellulomonas fimi]	5.8	
4988	U59706	Gallus gallus alternatively spliced AMPA glutamate receptor, isoform GluR2 flop, (GluR2) mRNA, partial cds.	0.015	<none></none>	<none></none>	<none></none>	
4989	AF086033	Homo sapiens full length insert cDNA clone YW26E09	e-174	<none></none>	<none></none>	<none></none>	
4990	L31840	Rattus norvegicus nuclear pore complex protein NUP107 mRNA, complete cds.	e-179	1709212	NUCLEAR PORE COMPLEX PROTEIN NUP107	2e-083	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		L	s. Non-Redundant P	,	
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4991	AF052144	Homo sapiens clone 24573 and 24786 mRNA sequences	e-170	1174415	SPIDROIN 2 (DRAGLINE SILK FIBROIN 2) >gi 345426 pir  A4 4112 spidroin 2, dragline silk fibroin - orb spider (Nephila clavipes) (fragment) clavipes]		
4992	M22406	Human intestinal mucin mRNA, partial cds, clone SMUC 42.	0.085	188864	(M74027) mucin [Homo sapiens]	1e-009	
4993	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
4994	U24697	Chironomus samoensis nanos homolog (Cs nos) gene, complete cds.	0.13	3880999	(AL021492) Y45F10D.11 [Caenorhabditis elegans]	7e-022	
4995	M64716	Human ribosomal protein S25 mRNA, complete cds.	4e-074	2943738	(AB011550) Drosophila Policomblike- related gene containing PHD fingers. [Mus musculus]	4e-011	
4996	X54326	H.sapiens mRNA for glutaminyl- tRNA synthetase	0	135104	MULTIFUNCTIO NAL AMINOACYL- TRNA SYNTHETASE (CONTAINS: GLUTAMYL- TRNA SYNTHETASE glutamyl-prolyl- tRNA synthetase - human >gi 31958	1e-088	
4997	Z12112	pWE15A cosmid vector DNA	2e-028	987050	(X65335) lacZ gene product [unidentified cloning vector]	2e-007	
4998		H.sapiens CpG DNA, clone 75f1, forward read cpg75f1.ft1b.	3e-010	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor	·· · · · · · · · · · · · · · · · · · ·	<del></del>	Nearest Neighbor		
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
4999	<none></none>	<none></none>	<none></none>	2134574	mucin - rhesus macaque (fragment) >gi 437055	5e-005	
5000	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	9e-009	<none></none>	<none></none>	<none></none>	
5001	Z93950	H.sapiens DNA; chromosome Y repeat regions	0.15	<none></none>	<none></none>	<none></none>	
5002	X64037	H.sapiens mRNA for RNA polymerase II associated protein RAP74	5e-056	<none></none>	<none></none>	<none></none>	
5003	M37583	Human histone (H2A.Z) mRNA, complete cds.	e-132	121994	HISTONE H2A.Z  >gi 89608 pir  S03 642 histone  H2A.Z - bovine  >gi 92380 pir  S03 644 histone  H2A.Z - rat  >gi 106267 pir  A3 5881 histone  H2A.Z - human  sapiens] >gi 57808  (X52316) histone  H2A.Z (AA 1-  127) taurus]  >gi 184060  (M37583) histone  (H2A.Z) [Homo  sapien	2e-044	
5004		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-011	<none></none>	<none></none>	<none></none>	
5005		Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	4e-011	<none></none>	<none></none>	<none></none>	
5006	į	Glycine max cv. Dare nodulin 26 gene fragment.	0.043	<none></none>	<none></none>	<none></none>	

	1	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)				
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE		
5007	Z34287	B.subtilis (SO113) genomic DNA (5425bp)	1.2	<none></none>	<none></none>	<none></none>		
5008	X76683	Plasmid vector pHM2 betalactamase gene	6e-078	987050	(X65335) lacZ gene product [unidentified cloning vector]	2e-014		
5009	D17577	Mouse mRNA for kinesin-like protein (Kif1b), complete cds	e-109	2497524	KINESIN-LIKE PROTEIN KIF1B mouse >gi 407339 gnl PI D d1005029 (D17577) Kif1b [Mus musculus]	9e-041		
5010	X91192	H.sapiens PLC beta 3 gene (exon 1) and SOM172 gene (exon 1)	1e-096	3294231	(AJ223970) monomethyl transferase	3		
5011	D88271	Human (lambda) DNA for immunogloblin light chain	1e-021	<none></none>	<none></none>	<none></none>		
5012	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
5013	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>		
5014	AF052133	Homo sapiens clone 23970 mRNA sequence	0	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.9		
5015	M21731	Human lipocortin-V mRNA, complete cds.	e-169	999934	Annexin V (Lipocortin V, Endonexin Ii, Placental Anticoagulant Protein) Mutant With Glu 17 Replaced By Gly, Glu 78 Replaced By Gln (E17g,E78q) Complexed With Calcium	4e-005		

		Nearest Neighbor	• •	<del></del>	Nonroct Noighban	
	(1	BlastN vs. Genbank)	)	(Blast X	Nearest Neighbor vs. Non-Redundant	Protoina)
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
5016		Human lipocortin-V mRNA, complete cds.	e-169	999934	Annexin V (Lipocortin V, Endonexin Ii, Placental Anticoagulant Protein) Mutant With Glu 17 Replaced By Gly, Glu 78 Replaced By Gln (E17g,E78q) Complexed With Calcium	4e-005
5017	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
5018	L44118	Homo sapiens proximal CMT1A-REP repeat	0.0005	<none></none>	<none></none>	<none></none>
5019	Y16849	Bacillus sp. D3 xynA and abfA genes and ORF1	2e-015	<none></none>	<none></none>	<none></none>
5020	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006		PUTATIVE ATP-DEPENDENT RNA HELICASE T26G10.1 IN CHROMOSOME III >gi 482102 pir  S4 0731 ATP- dependent RNA helicase homolog T26G10.1 - Caenorhabditis elegans >gi 3880293 gnl PI D e1349766 1397- 1495 which introduced stop codon at 3' splice; 5' splice looks v.	9e-005
5021		Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>

		Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank			(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE		DESCRIPTION	P VALUE		
5022	U02455	Cloning vector rpDR2, complete sequence.	0.35	2132302	hypothetical protein YPR144c - yeast similarity near C-terminus to RNA Polymerase beta subunit (Swiss Prot. accession number P11213) and CCAAT-binding transcription factor (PIR accession number A36368) [Saccharomyces cerevisiae]			
5023	X97999	H.sapiens mRNA for transcription factor IID, subunit TAFII55	0	3024690	TRANSCRIPTIO N INITIATION FACTOR TFIID 55 KD SUBUNIT (TAFII-55) (TAFII55) factor IID [Homo sapiens]	4e-083		
5024	X71642	M.musculus GEG-154 mRNA	3e-092	<none></none>	<none></none>	<none></none>		
5025	X71642	M.musculus GEG-154 mRNA	3e-092	<none></none>	<none></none>	<none></none>		
5026	AB018270	Homo sapiens mRNA for KIAA0727 protein, partial cds	4e-061	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	7.6		
5027	D90086	Human pyruvate dehydrogenase (EC 1.2.4.1) beta subunit gene, exons 1-10	4e-011	2143936	probable regulatory protein 322 - rat	7.7		
5028	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.002	<none></none>	<none></none>	<none></none>		
5029	X65319	Cloning vector pCAT-Enhancer	2e-081	987050	(X65335) lacZ gene product [unidentified cloning vector]	3e-015		
5030	<none></none>	<none></none>	<none></none>	188864	(M74027) mucin [Homo sapiens]	0.001		

		Nearest Neighbor		Nearest Neighbor			
SEQ	ACCESSION	BlastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALU	
5031	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete	0.0002	3258141	(AP000007) 138aa long hypothetical protein [Pyrococcus	9.6	
5032	X98001	H.sapiens mRNA for geranylgeranyl transferase II	e-129	2506788	horikoshii]  GERANYLGERA NYL TRANSFERASE TYPE II BETA SUBUNIT (RAB GERANYLGERA NYLTRANSFER ASE BETA SUBUNIT) (RAB GERANYL- GERANYLTRAN SFERASE BETA SUBUNIT) transferase II [Homo sapiens]	3e-026	
5033	U72789	Human cosmid U197H5, complete sequence [Homo sapiens]	5e-023	<none></none>	<none></none>	<none></none>	
5034	U72789	Human cosmid U197H5, complete sequence [Homo sapiens]	5e-023	<none></none>	<none></none>	<none></none>	
5035		Choristoneura fumiferana entomopoxvirus spheroidin gene, complete cds, G4R gene, partial cds, and nucleoside triphosphate phosphohydrolase (NPH I) gene, partial cds	3.8	<none></none>	<none></none>	<none></none>	
036	]	Xenopus laevis mitotic phosphoprotein 44 mRNA, partial	8e-009	þ	AE000788) B. Durgdorferi Dredicted coding egion BBK23	4	

<b>f</b>	· ·	Nearest Neighbor	···	Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
5037	U66871	Human enhancer of rudimentary homolog mRNA, complete cds	0	2498336	ENHANCER OF RUDIMENTARY HOMOLOG homologous to DROER protein [Homo sapiens] >gi 1519519 sapiens]	6e-057	
5038	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
5039	X99728	H.sapiens NDUFV3 gene, exon 3	3e-092	2829450	NADH- UBIQUINONE OXIDOREDUCT ASE 9 KD SUBUNIT PRECURSOR (COMPLEX I- 9KD) (CI-9KD)	1e-015	
5040	X78730	M. musculus DNA for the flanking sequences of the hypothalamic GRH first exons	2	<none></none>	<none></none>	<none></none>	
5041	X84373	H.sapiens mRNA for nuclear factor RIP140 > :: gb G28540 G285 40 human STS SHGC-31616.	e-155	<none></none>	<none></none>	<none></none>	
5042	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
5043	X82272	Human endogenous retrovirus env mRNA	8e-081	1196429	(M14123) pol/env ORF (bases 3878- 8257) first start codon at 4172; Xxx; putative [Homo sapiens]	6e-058	
5044	AF029982	Mus musculus sarco(endo)plasm ic reticulum calcium ATPase (SERCA2) gene, promoter region, exons 1-3, and partial cds	0.003	3873550	(AL033534) serine-rich protein	0.018	
5045	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
5046		Homo sapiens mRNA for transducin (beta) like 1 protein	1e-084	3021409	(Y12781) transducin (beta) like 1 protein [Homo sapiens]	2e-064	

		Nearest Neighbor	·· ·	Т		<del></del> .
		lastN vs. Genbank)		(D) 32	Nearest Neighbor	
SEQ	ACCESSION	DESCRIPTION		(BlastX	vs. Non-Redundant I	
ID			P VALUE	ACCESSION	DESCRIPTION	P VALUE
5047	\$63912	D10S102=FBRN P [human, fetal brain, mRNA, 3043 nt]	4e-084	<none></none>	<none></none>	<none></none>
5048	X91192	H.sapiens PLC beta 3 gene (exon 1) and SOM172 gene (exon 1)		3294231	(AJ223970) monomethyl transferase	3
5049	X03558	Human mRNA for elongation factor 1 alpha subunit	0	1169475	ELONGATION FACTOR 1- ALPHA 1	e-108
5050	L31783	Mus musculus uridine kinase mRNA, partial cds	3e-029	1718058	URIDINE KINASE (URIDINE MONOPHOSPHO KINASE) >gi 471981 (L31783) uridine kinase	4e-011
5051		A.longa plastid genes for tRNAs, ribosomal protein, rRNA and elongation factor	1.3	<none></none>	<none></none>	<none></none>
5052		M.acuminata mRNA; clone pBAN UD75	1.1	<none></none>	<none></none>	<none></none>
5053		Human HepG2 3' region cDNA, clone hmd2h05	1.5	<none></none>	<none></none>	<none></none>
5054		Xenopus laevis XL-INCENP (XL-INCENP) nRNA, complete eds	1e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.7

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE		DESCRIPTION	P VALUE	
5055	AF043252	Homo sapiens	e-106	3941342	(AF043250)	6e-007	
3033	AF043232	mitochondrial	6-100	3941342	mitochondrial	0e-007	
		outer membrane			outer membrane		
		protein (Tom40)		·	protein [Homo		
		gene, nuclear			sapiens]		
		gene encoding			>gi 3941347		
		mitochondrial		,	(AF043253)	1	
		protein, exons 7,	ļ		mitochondrial		
		8 and 9			outer membrane		
1 1		ĺ			protein [Homo		
	,				sapiens]		
					>gi 4105703		
					(AF050154)		
					D19S1177E		
					[Homo sapiens]		
5056	X66494	R.norvegicus	1e-012	1545807	(D78572)	3e-007	
		CHOT1 mRNA			membrane		
					glycoprotein [Mus		
5057	<none></none>	<none></none>	<none></none>	<none></none>	musculus] <none></none>	<none></none>	
5058	U95094	Xenopus laevis	2e-007	3513368	(AB017202)	3e-005	
	033074	XL-INCENP	20-007	3313300	entactin-2 [Mus	36-003	
		(XL-INCENP)			musculus]		
		mRNA, complete			, <b>,</b>		
		cds					
5059	U77107	Fundulus	0.37	3947877	(AL034382)	7e-026	
		lineolatus			putative mitosis		
] [		cytochrome b			and maintenance		
		(cytb) gene,			of ploidy protein	:	
1		mitochondrial			[Schizosaccharom		
		gene encoding			yces pombe]		
		mitochondrial protein, partial		Ī	·	'	
		cds	İ				
5060	X52317	Human mRNA	5e-014	<none></none>	<none></none>	<none></none>	
		for histone	50 011	1,01,12	1.01.12	110112	
		H2A.Z					
5061	U95102	Xenopus laevis	3e-008	<none></none>	<none></none>	<none></none>	
		mitotic					
		phosphoprotein					
]		90 mRNA,					
-		complete cds					
5062	U95094	Xenopus laevis	1.2	<none></none>	<none></none>	<none></none>	
		XL-INCENP		1			
		(XL-INCENP)		ļ			
		mRNA, complete					
		cds					

		Nearest Neighbor		<del></del>	Nearest Neighbor	•	
	(E	BlastN vs. Genbank)	)	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
5063	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
5064	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	1e-011	2072296	(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	1.5	
5065	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0002	<none></none>	<none></none>	<none></none>	
5066	X15943	Huamn calcitonin/alpha- CGRP gene	le-012	1575563	(U66464) hematopoietic progenitor kinase [Homo sapiens]	5.6	
5067	AF001175	Homo sapiens ribonuclease P protein subunit p14 (Rpp14) mRNA, complete cds	0	4100563	(AF001175) ribonuclease P protein subunit p14 [Homo sapiens]	2e-032	
5068	L29260	Arabidopsis thaliana 1-amino- 1- cyclopropanecarb oxylate synthase (ACS5) gene, complete cds.	0.41	<none></none>	<none></none>	<none></none>	
5069		Mouse DNA for t-haplotype- specific elements (located in H-2 complex, ETn related)	1.2	<none></none>	<none></none>	<none></none>	
5070	,	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	1e-010		(U95098) mitotic phosphoprotein 44 [Xenopus laevis]	5.5	
5071	1	M.musculus mRNA for Brx gene, partial	3e-018		(Y11896) BRX protein [Mus musculus]	3e-011	

	Nearest Neighbor			Nearest Neighbor			
		lastN vs. Genbank)	_	(BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
5072	Y00711	Human mRNA for lactate dehydrogenase B (LDH-B)	0	126041	L-LACTATE DEHYDROGENA SE H CHAIN dehydrogenase B (AA 1 - 334) [Homo sapiens] >gi 1200083	e-102	
5073	AF065482	Homo sapiens sorting nexin 2 (SNX2) mRNA, complete cds	0	3152938	(AF065482) sorting nexin 2 [Homo sapiens]	3e-072	
5074	M86374	Rat tropoelastin gene, intron 25 (partial).	0.13	<none></none>	<none></none>	<none></none>	
5075	D50418	Mouse mRNA for AREC3, partial cds	6e-047	2495271	SKELETAL MUSCLE- SPECIFIC ARE BINDING PROTEIN AREC3 (HOMEOBOX PROTEIN SIX4) M18) - mouse >gi 1255626 gnl PI D d1009550 (D50416) AREC3	2e-006	
5076	D17448	Microcystis aeruginosa plasmid pMA2 DNA, complete genome sequence	0.13	<none></none>	<none></none>	<none></none>	
5077	M29548	Human elongation factor 1-alpha (EF1A) mRNA, partial cds.	e-166	1169475	ELONGATION FACTOR 1- ALPHA 1	6e-010	
5078	AF081496	Homo sapiens kinetochore protein BUB3 (BUB3) mRNA, complete cds	бе-044	2921873	(AF047472) spleen mitotic checkpoint BUB3 [Homo sapiens] protein BUB3 [Homo sapiens]	3e-006	
5079	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7e-007	<none></none>	<none></none>	<none></none>	
5080	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	

		Nearest Neighbor	· · · · · · · · · · · · · · · · · · ·	1	Nearest Neighbor		
ero	1000000	BlastN vs. Genbank		(BlastX	(BlastX vs. Non-Redundant Proteins)		
SEQ ID		N DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
5081		Human endogenous retrovirus HERV K10.	2e-065 -	1196429	(M14123) pol/env ORF (bases 3878- 8257) first start codon at 4172; Xxx; putative [Homo sapiens]		
5082		<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
5083	D30655	Homo sapiens mRNA for eukaryotic initiation factor 4AII, complete cds	0	673433	(X56953) protein synthesis initiation factor 4A [Mus musculus]	2e-092	
5084	X16869	Human mRNA for elongation factor 1-alpha (clone CEF4)	5e-045	3122072	ELONGATION FACTOR 1- ALPHA 1 chicken >gi 488468 (L00677) elongation factor 1 alpha	1e-009	
5085	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
5086	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	
5087	U78310	Homo sapiens pescadillo mRNA, complete cds	e-122	2194203	(U78310) pescadillo [Homo sapiens]	9e-009	
5088	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<no) ies<="" td=""></no)>	
5089	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-005	<none></none>	<none></none>	<none></none>	
5090	U09368	Human zinc finger protein ZNF140	0		ZINC FINGER PROTEIN 140 human >gi 487787 (U09368) zinc finger protein ZNF140	2e-062	
5091	M98509	Human NFB genomic fragment.	1e-010	<none></none>	<none></none>	<none></none>	
5092	AB002322	Human mRNA for KIAA0324 gene, partial cds	e-130	.	(AC004493) KIAA0324 [Homo sapiens]	9e-018	
5093	AJ007670	Homo sapiens mRNA for LGMD2B protein	2e-014	403460	(L24521) transformation- related protein [Homo sapiens]	3.8	

	1	Nearest Neighbor	<u> </u>	r	Nearest Neighbor	
		lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
5094	X16869	Human mRNA for elongation factor 1-alpha (clone CEF4)	0	181967	(M29548) elongation factor 1-alpha [Homo sapiens]	2e-036
5095	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7e-007	<none></none>	<none></none>	<none></none>
5096	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0005	<none></none>	<none></none>	<none></none>
5097	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>
5098	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	2e-006	<none></none>	<none></none>	<none></none>
5099		Borrelia burgdorferi 2.9-1 locus, ORF 5-8, ORF-A-D, REP+, REP-, and lipoprotein (LP) genes, complete cds	0.014	3510605	(AF044267) gyrase subunit B [Chlamydia trachomatis]	3.4
5100		Homo sapiens CLP mRNA, partial cds.	0	<none></none>	<none></none>	<none></none>
5101		Human mRNA for KIAA0104 gene, complete cds	0	1350786	PUTATIVE 60S RIBOSOMAL PROTEIN sapiens] >gi 3947438 (AC005034) ribosomal protein- like	e-111

		Manuart N. 11	<del></del>	<del></del>		
	(D	Nearest Neighbor		Nearest Neighbor		
CEO	(B	lastN vs. Genbank)		(BlastX vs. Non-Redundant Proteins)		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
5102	X78627	H.sapiens mRNA for translin.	0	1082873	translin - human >gi 607130 (X78627) translin [Homo sapiens] >gi 1586346 prf  2 203413A recombination hotspot-binding protein [Homo sapiens]	5e-068
5103	U95102	Xenopus laevis mitotic phosphoprotein 90 mRNA, complete cds	0.0001	<none></none>	<none></none>	<none></none>
5104	M12585	Mouse alpha-1 antitrypsin gene, segment 1.	2e-006	3873550	(AL033534) serine-rich protein	1.7
5105	X52967	Human mRNA for ribosomal protein L7	0	423072	ribosomal protein L7 - human	7e-061
5106	U95094	Xenopus laevis XL-INCENP (XL-INCENP) mRNA, complete cds	7e-007	<none></none>	<none></none>	<none></none>

	Nearest Ne	ighbor (BlastN vs. (	Genbank)	Nearest Neig	hbor (BlastX vs. Noi Proteins)	n-Redundant
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	,	P VALUE
5107	X78722	M.musculus GLUT2 gene for glucose transporter	0.34	1685115	(U68754) putative transcription factor [Dictyostelium discoideum]	3.8
5108	AF002677	Dictyostelium discoideum DEAD-box RNA helicase	0.28	3293508	(AF069188) NADH dehydrogenase 1 [Ephedrus laevicollis]	0.81
5109	AB018263	Homo sapiens mRNA for KIAA0720 protein, partial cds	0.87	107240	oncogene 1 (tre-2 locus) (clone 210) - human	0.19
5110	AF017115	Homo sapiens cytochrome c oxidase subunit IV precursor (COX4) gene, nuclear gene encoding mitochondrial protein, complete cds	0.77	<none></none>	<none></none>	<none></none>
5111	AE001383	Plasmodium falciparum chromosome 2, section 20 of 73 of the complete sequence	0.15	2315754	(AF016681) No definition line found [Caenorhabditis elegans]	9.6
5112	D49577	Pig mRNA for rearranged T-cell receptor delta- chain/Vdelta1.14- Ddeltas-Jdelta1, partial cds	0.91	<none></none>	<none></none>	<none></none>
5113	U63810	Homo sapiens WD40 protein Ciao 1 mRNA, complete cds	0.0	3219331	(AC004020) Unknown gene product [Homo sapiens]	3e-92
5114	AF085858	Homo sapiens full length insert cDNA clone YN49B07	e-172	3329465	(AF064553) NSD1 protein [Mus musculus]	<b>8e</b> -54
5115	X01682	Mouse gene for cytochrome P3-450	0.026	1381394	(U40989) tat interactive protein [Homo sapiens]	4.0

	Nearest Ne	ighbor (BlastN vs. (	Genbank)	Nearest Neig	hhor (BlastX vs. No	n-Redundant	
		• .	o enount)	Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE	
ID							
5116	AE001432	Plasmodium	1.5	3873713	(Z74026) cDNA	9e-11	
		falciparum			EST yk452h4.3		
		chromosome 2, section 69 of 73			comes from this		
		of the complete		1	gene; cDNA EST	]	
		sequence			yk452h4.5 comes from this gene		
5117	U31973	Human	2.3	136976	PROTEIN UL87	8.1	
		phosphodiesteras	2.5	150770	>gi 76594 pir  S09	0.1	
		e A' subunit			851 hypothetical		
		(PDE6C) mRNA,			protein UL87 -		
		complete cds. > ::			human		
		gb G28549 G285			cytomegalovirus		
		49 human STS			cytomegalovirus]		
6110	V/00010	SHGC-31657.					
5118	X02212	Chicken alpha-	2.6	<none></none>	<none></none>	<none></none>	
5119	AE000838	cardiac actin gene Methanobacteriu	0.89	765086	(D20704) 6 1:		
	71E000636	m	0.89	08060	(D30786) feline CD9 [Felis catus]	1.4	
		thermoautotrophi			CD3 [Fells catus]		
		cum from bases					
		494834 to 505698					
		(section 44 of					
		148) of the					
5120	1100744	complete genome					
3120	U89744	Rattus norvegicus putative cell	0.68	728850	GLUCOAMYLA	9e-06	
		surface antigen			SE S1/S2 PRECURSOR		
		mRNA, complete			(GLUCAN 1,4-		
		cds	1		ALPHA-		
					GLUCOSIDASE)		
			Į		(1,4-ALPHA-D-		
			ľ		GLUCAN		
			į	ĺ	GLUCOHYDROL		
					ASE)		
	İ				>gi 626156 pir  S4		
					8478 glucan 1,4-		
	1				alpha-glucosidase		
	1				(EC 3.2.1.3) - yeast stal, len:	1	
	1				1367, CAI: 0.3,	]	
				l l	AMYH YEAST	1	
					P08640	j	
	į				GLUCOAMYLA	1	
		İ	l		SE S1 (EC		
					3.2.1.3)	İ	
					Saccharomyc		

	Nearest Ne	ighbor (BlastN vs. 0	Genbank)	Nearest Neig	hbor (BlastX vs. No	n-Redundant
050	A COPOSION	DECORPTON	DVALUE	ACCEGGION	Proteins)	DAZAKAR
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	PVALUE
5121	J04974	Human alpha-2 type XI collagen mRNA (COL11A2).	1.2	114887	BREAKPOINT CLUSTER REGION PROTEIN protein, splice form 1 - human >gi 29421 (X02596) bcr gene product [Homo	9.4
5122	AL021806	Homo sapiens DNA sequence from PAC 779B17 on chromosome 22q13.1. Contains exon trap, complete sequence	0.046	2827756	sapiens] EPHRIN TYPE-A RECEPTOR 1 PRECURSOR	1.9
5123	X68826	P.sativum mRNA for fructose 1,6 biphosphatase	0.95	1314248	(U24681) NADH:cytochrom e c reductase [synthetic construct]	2e-05
5124	M14431	Bacteriophage phi-29 gene-16 gene, complete cds.	0.035	<none></none>	<none></none>	<none></none>
5125	U17033	Human 180 kDa transmembrane PLA2 receptor mRNA, complete cds.	0.36	722372	(U23139) similar to beta transducin proteins containing TRP-ASP domains [Caenorhabditis elegans]	3e-08
5126	Z50202	P.vulgaris arc5-1 gene	0.007		(U43319) transmembrane receptor [Mus musculus]	0.13
5127	AF013711	Homo sapiens 22 kDa actin-binding protein	2e-10	<none></none>	<none></none>	<none></none>
5128	AF086324	Homo sapiens full length insert cDNA clone ZD53E07	5e-09		(U83192) post- synaptic density protein 95 [Homo sapiens]	0.001
5129		T. thermophila mRNA for citrate synthase (EC 4.1.3.7)	0.63	<none></none>	<none></none>	<none></none>

	Nearest Ne	ighbor (BlastN vs. 0	Genbank)	Nearest Neig	ghbor (BlastX vs. No	n-Redundant
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	Proteins) DESCRIPTION	P VALUE
5130	D45105	Metschnikowia reukaufii 26S rRNA, partial sequence	0.78	<none></none>	<none></none>	<none></none>
5131	D85088	Ectoplana limuli DNA for 18s ribosomal RNA	0.41	267408	PROBABLE DNA PACKAGING PROTEIN packaging protein [Human herpesvirus 4]	7.2
5132	X89886	P.patens mRNA for 5- aminolevulinate dehydratase	0.41	3875246	(Z81490) similar to WD domain, Gbeta repeats (2 domains); cDNA EST EMBL:T00482 comes from this gene; cDNA EST EMBL:T00923 comes from this gene; cDNA EST yk449d4.3 comes from this gene; cDNA EST yk449d4.5 comes from this gene; cDNA EST yk449d4.5 comes from this gene;	2e-22
5133		Homo sapiens mRNA for KIAA0664 protein, partial cds	0.0	2981221	(AF053091) eyelid [Drosophila melanogaster]	0.076
5134	: :	Plasmodium falciparum chromosome 2, section 40 of 73 of the complete sequence	0.003		HYPOTHETICAL 26.3 KD HOMEOBOX PROTEIN C02F12.5 IN CHROMOSOME X > gi 1109893 (U41545) strong similarity to homeobox proteins; similar to inhibitor domain of tissue factor pathway inhibitor	3.7

	Nearest Nei	ighbor (BlastN vs. (	Genbank)	Nearest Neig	hbor (BlastX vs. Nor Proteins)	n-Redundant
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
5135	U92574	Fugu rubripes homeobox protein HOXB-1 (FrHOXB-1) gene, complete cds	0.54	<none></none>	<none></none>	<none></none>
5136	U31118	Xenopus laevis cytoplasmic myosin II regulatory light chain mRNA, complete cds	0.26	3879530	(Z49130) cDNA EST yk486b9.3 comes from this gene; cDNA EST yk486b9.5 comes from this gene	8e-07
5137	L49035	Gorilla gorilla ABC-transporter (TAP2) mRNA, complete cds	0.21	4007066	(AJ131571) X protein [Hepatitis B virus]	1.3
5138	AF068628	Mus musculus DNA cytosine-5 methyltransferase 3B3 (Dnmt3b) mRNA, alternatively spliced, complete cds	4e-04	<none></none>	<none></none>	<none></none>
5139	M64982	Human fibrinogen alpha chain gene, complete mRNAs.	0.062	<none></none>	<none></none>	<none></none>
5140	M19262	Rat clathrin light chain (LCB3) mRNA, complete cds.	0.25	2088802	(AF003151) D1007.4 gene product [Caenorhabditis elegans]	0.012
5141	X94947	L.esculentum mRNA for homeobox protein	3.7	2315770	(AF016683) K09F6.1 gene product [Caenorhabditis elegans]	0.096
5142	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>	<none></none>
5143	M33782	Human TFEB protein mRNA, partial cds.	0.36	<none></none>	<none></none>	<none></none>
5144	AB011098	Homo sapiens mRNA for KIAA0526 protein, complete cds	2e-07	2501115	TBX2 PROTEIN (T-BOX PROTEIN 2)	0.90

	Nearest Ne	ighbor (BlastN vs. (	Genbank)	Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE	
5145	AF039029	Homo sapiens snurportin1 mRNA, complete cds	0.0	3834390	(AF039029) snurportin1 [Homo sapiens]	e-108	
5146	U22970	Human interferon- inducible peptide (6-16) gene, complete cds	0.21	<none></none>	<none></none>	<none></none>	
5147	D63880	Human mRNA for KIAA0159 gene, complete cds	2e-64	<none></none>	<none></none>	<none></none>	
5148	AB011174	Homo sapiens mRNA for KIAA0602 protein, partial cds	e-164	3043728	(AB011174) KIAA0602 protein [Homo sapiens]	2e-53	
5149		Homo sapiens metaxin 2 (MTX2) mRNA, nuclear gene encoding mitochondrial protein, complete cds	0.0	3283049	(AF053551) metaxin 2 [Homo sapiens]	le-76	
5150		Arabidopsis thaliana ferrochelatase-1 gene and promoter sequence	0.012	<none></none>	<none></none>	<none></none>	
5151		Colias eurytheme large subunit ribosomal RNA gene, partial sequence; tRNA-Val gene, complete sequence; and small subunit ribosomal RNA gene, partial sequence, mitochondrial genes for mitochondrial RNAs	1.3	<none></none>	<none></none>	<none></none>	

	Nearest Ne	ighbor (BlastN vs. C	Genbank)	Nearest Neig	hbor (BlastX vs. Nor Proteins)	n-Redundant
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
ID						
5152	AF005059	Toxoplasma gondii p97 mRNA, complete cds	0.90	2570049	(Y08701) Pinin [Mus musculus]	1.3
5153	D84307	Human mRNA for phosphoethanola mine cytidylyltransfera se, complete cds	0.013	<none></none>	<none></none>	<none></none>
5154	D38050	Aspen prxA3a gene for peroxidase, complete cds	0.018	1723942	HYPOTHETICAL 20.8 KD PROTEIN IN COX4-GTS1 INTERGENIC REGION >gi 2131614 pir  S 61134 hypothetical protein YGL183c - yeast (Saccharomyces cerevisiae) >gi 1143564 gnl PI D e199057 (X91489) putative HMG box [Saccharomyces cerevisiae]	0.39
5155	AL010208	Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 3-103, complete sequence	0.13	1850115	(Z86089) fadD2 [Mycobacterium tuberculosis]	1.5
5156	U07807	Human metallothionein IV (MTIV) gene, complete cds.	0.004	<none></none>	<none></none>	<none></none>
5157	AF048991	Homo sapiens MutS homolog 5 (MSH5) gene, exons 13 through 25 and complete cds	0.001	3986756	(AF109905) NG23 [Mus musculus]	0.007

	Nearest Ne	ighbor (BlastN vs. (	Genbank)	Nearest Neig	hbor (BlastX vs. No	n-Redundant
SEQ	ACCESSION	DESCRIPTION	DVALID	ACOEGGION	Proteins)	
ID			P VALUE	ACCESSION	DESCRIPTION	PVALUE
5158	U39079	Schizosaccharom	0.50	<none></none>	<none></none>	<none></none>
		yces pombe ARS				
5159	X01706	binding protein 1	0.41	2224212	(4.00000000	
3139	A01700	Mouse intracisternal A-	0.41	2224713	(AB002384) KIAA0386 [Homo	8e-04
		particle (IAP)			sapiens]	
		gene 62 long			Supicinal	
		terminal repeat				
	·	(LTR)				
5160	AF030558	Rattus norvegicus	8e-13	<none></none>	<none></none>	<none></none>
		phosphatidylinosi				
		tol 5-phosphate 4- kinase gamma				
		mRNA, complete				
		cds				
5161	L06453	Strongylocentrotu	0.33	3914031	BETA-	0.087
		s purpuratus			GALACTOSIDE	
]		(clone C) high			SPECIFIC	
l i		mobility group 1 protein (HMG1			LECTIN I A	
		homologue) gene,			CHAIN (MLA) (ML-I A) (RRNA	
]		complete cds.			N-	
					GLYCOSIDASE)	
5162	Z68320	Caenorhabditis	0.28	2500558	PUTATIVE	2e-25
		elegans cosmid			RIBONUCLEASE	
		W07A12, complete			III (RNASE III)	
		sequence			>gi 3876420 gn1 PI D e1346063	
		[Caenorhabditis			(Z81070) similar	
		elegans]			to ribonuclease	
					[Caenorhabditis	
5163	U40397	Mus musculus	50.04		elegans]	
1 2103		Mus musculus serum amyloid A-	5e-04	<none></none>	<none></none>	<none></none>
		4 protein (Saa4)				
		gene, complete		1		
		cds				
5164		Chlamydomonas	0.046	<none></none>	<none></none>	<none></none>
		chloroplast DNA		ŀ		
		region with ARS element 03 (ARS				
		= autonomously				
		replicating				
		sequence)				

	Nearest Ne	ighbor (BlastN vs. C	Genbank)	Nearest Neig	hbor (BlastX vs. Nor Proteins)	n-Redundant
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
5165	U43 <b>8</b> 38	Glycine max choline kinase GmCK1p mRNA, complete cds		132918	50S   RIBOSOMAL   PROTEIN L35,   CHLOROPLAST   PRECURSOR   (CL35)   >gi 81486 pir  A36   107 ribosomal   protein L35   precursor,   chloroplast -   spinach oleracea	2.4
5166	U67590	Methanococcus jannaschii section 132 of 150 of the complete genome	0.097	<none></none>	<none></none>	<none></none>
5167	AB006787	Mus musculus mRNA for apoptosis signal- regulating kinase 1, complete cds	0.39	1263187	(U24215) HOMODA hydrolase [Pseudomonas putida] putida]	0.83
5168	U43567	Trypanosoma cruzi kinetoplast maxicircle DNA, clone TRCKPMAX	0.054	<none></none>	<none></none>	<none></none>
5169	U04706	Bos taurus 50 kDa protein (adp50) mRNA, complete cds.	0.0	2498104	ADRENAL MEDULLA 50 KD PROTEIN	8e-83
5170	L14684	Rattus norvegicus nuclear-encoded mitochondrial elongation factor G mRNA, complete cds.	e-137		ELONGATION FACTOR G, MITOCHONDRI AL PRECURSOR (MEF-G) >gi 543383 pir  S4 0780 translation elongation factor G, mitochondrial - rat >gi 310102	3e-59
5171	į	Human glucose- 6-phosphatase mRNA, complete cds. >	2e-04		GLUCOSE-6- PHOSPHATASE (G6PASE) 3.1.3.9) - human >gi 452444 (U01120) glucose- 6-phosphatase [Homo sapiens]	4e-12

	Nearest N	eighbor (BlastN vs.	Genbank)	Nearest Nei	ghbor (BlastX vs. No	on-Redundan
SEQ	ACCESSION	II DECORIDAN	T <del>6 11 11 11 -</del>	Proteins)		
ID			P VALUE	ACCESSION	DESCRIPTION	P VALUE
5172	D87671	Rat mRNA for TIP120, complete cds	e-144	1799570	(D87671) TIP120 [Rattus norvegicus]	3e-69
5173	U22296	Rattus norvegicus casein kinase 1 gamma 1 isoform mRNA, complete cds	e-120	3024053	CASEIN KINASE I, GAMMA 1 ISOFORM kinase 1 gamma 1 isoform [Rattus norvegicus]	8e-54
5174	Y07648	A.thaliana nit2 gene, nit1 gene and nit3 gene	0.007	2429486	(AF025464) No definition line found [Caenorhabditis elegans]	9.5
5175	AB013721	Oryctolagus cuniculus mRNA for mitsugumin 23, complete cds	3e-91	3628745	(AB013721) mitsugumin 23 [Oryctolagus cuniculus]	0.006
5176	M74069	Saccharomyces cerevisiae endochitinase (CTS1-1) gene, complete cds.	2.5	<none></none>	<none></none>	<none></none>
5177	Z61469	H.sapiens CpG DNA, clone 52h1, forward read cpg52h1.ft1a	1e-77	1184072	(U40766) COL-1 [Meloidogyne incognita]	0.002
5178	AF015043	Homo sapiens EH-binding protein mRNA, partial cds	0.0	ļ	APOLIPOPROTE IN C-IV PRECURSOR cluster E-C1-C2 linked gene [Mus musculus]	3.0
		H.sapiens (clone pS2) sequence	3e-04	İ	(AL031798) putative diphthine synthase	3e-23
5180		H.sapiens RP3 gene (XLRP gene 3)	1e-05	<none></none>	<none></none>	<none></none>
5181		M.musculus mRNA for RIP1 protein	0.48		synapsin Ib - human	3e-04
5182	1	Human Ig J chain gene, exons 3 and 4.	0.036	<none></none>	<none></none>	<none></none>

	Nearest Ne	ighbor (BlastN vs. (	Genbank)	Nearest Neig	hbor (BlastX vs. No Proteins)	n-Redundant
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE
ID						1 111202
5183	M30773	Human calcineurin B mRNA, complete cds	0.002	3878494	(Z79602) predicted using Genefinder; Similarity to Yeast hypothetical protein YAE2	3e-06
					gene; cDNA EST EMBL:M88949 comes from this gene	
5184	U08831	Human immunodeficienc y virus type 1, sample 019 from Thailand (E2TH019W.01di 1sCD), envelope glycoprotein c2v3 region (env) gene, partial cds.	0.015	<none></none>	<none></none>	<none></none>
5185	Z98303	Human DNA sequence from BAC 140H19 on chromosome Xq24-25. Contains STS	0.005	<none></none>	<none></none>	<none></none>
5186	AE000952	Archaeoglobus fulgidus section 155 of 172 of the complete genome	2e-07		(AP000003) 571aa long hypothetical oxaloacetate decarboxylase alpha chain [Pyrococcus horikoshii]	5e-08
5187		Homo sapiens (subclone 3_e10 from P1 H21) DNA sequence.	2e-04		(Z72510) similarity to yeast UTR3 protein (Swiss Prot accession number P21374); cDNA EST EMBL:D72822 comes from this gene; cDNA EST EMBL:D75763 comes from this gene; cDNA EST yk274e3.3 comes from this gene; cDNA EST	0.19

	Nearest Neighbor (BlastN vs. Genbank)			Nearest Nei	ghbor (BlastX vs. No Proteins)	n-Redundar
SEQ ID	ACCESSION	N DESCRIPTION	P VALUE	ACCESSION		P VALU
					yk274e3	<del> </del>
				<u> </u>		
						ĺ
5188	U95102	Xenopus laevis	3e-09	ZNONES	ALONE	
	030.02	mitotic	36-09	<none></none>	<none></none>	<none></none>
		phosphoprotein				
		90 mRNA,				
5189	AF055022	Complete cds Homo sapiens	e-102	2708743	(AC003952)	
		clone 24684	0-102	2700743	putative Tal-1-like	4.0
		mRNA sequence			reverse	
5190	AJ009761	Homo sapiens	e-121	1050050	transcriptase	
	710007701	mRNA for	e-121	4050050	(AF102147) putative	8e-48
		putative			dimethyladenosine	
		dimethyladenosin			transferase [Homo	
		e transferase, partial			sapiens]	
5191	Y08238	H.pylori clpB	0.27	1572756	(U70848)	1e-21
		gene			C43G2.1 gene	10-21
ĺ				;	product	
			į		[Caenorhabditis elegans]	
5192	<none></none>	<none></none>	<none></none>	2828280	(AL021687)	9e-36
					putative protein	
					[Arabidopsis thaliana]	
					>gi 2832633 gnl PI	
			1		D e1249651	
					(AL021711)	
					putative protein [Arabidopsis	
102	100545				thaliana]	
193		Rat insulin-I (ins-	6e-05	4154522	(AE001441)	3.2
		1) gene.			putative	
					[Helicobacter pylori]	
194	ì	Human 3' of	0.83		gene LF3 protein -	0.069
		immunoglobulin heavy chain locus		ļi	numan herpesvirus	
		neavy chain locus			1 virus]	

	Nearest Neighbor (BlastN vs. Genbank)			Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
ID							
5195	AB002383	Human mRNA	8e-13	2498318	DXS6673E	2e-24	
		for KIAA0385			PROTEIN		
		gene, complete		•	retardation		
		cds			candidate gene		
5196	M81840	Human NRL	0.029	3875740	[Homo sapiens] (Z81497) similar	6e-18	
3170	14101040	gene product	0.029	3673740	to mannosyl-	06-18	
		mRNA, complete			oligosaccharide		
		cds.			alpha-1, 2-		
					mannosidase;		
					cDNA EST		
					EMBL:D67155		
					comes from this		
					gene; cDNA EST		
	!				EMBL:D64219		
					comes from this		
					gene; cDNA EST yk260e12.3 comes		
			İ		from this gene;		
					cDNA EST	Ī	
					yk260e12.5 comes		
					f	İ	
5197	U12523	Rattus norvegicus	le-10	3219914	HYPOTHETICAL	2e-11	
		ultraviolet B	İ		16.8 KD		
		radiation-		1	PROTEIN		
		activated UV98 mRNA, partial			C30D10.04 IN CHROMOSOME		
		sequence.			II		
		sequence.		i i	>gi 2276353 gnl PI	·	
					Dle330328	!	
				1	pombe]		
5198		Mus musculus	0.0		(AB017026)	e-120	
	1	mRNA for			oxysterol-binding	1	
		oxysterol-binding		Ì	protein	1	
		protein, complete				Ĭ	
5199		cds Homo sapiens	e-119	3258618	(1192091)	72.26	
3199		apoptosis	6-119		(U83981) apoptosis	7e-26	
		associated protein			associated protein	1	
		(GADD34)			[Homo sapiens]		
		mRNA, complete				ŀ	
	1	cds					

	Nearest N	eighbor (BlastN vs.	Genbank)	Nearest Neighbor (BlastX vs. Non-Redundant			
SEQ	ACCESSION	DESCRIPTION	P VALUE	Proteins)			
ID			PVALUE	ACCESSION	DESCRIPTION	P VALUE	
5200	U37580	Streptomyces coelicolor phosphotyrosine protein phosphatase (ptpA) gene, putative cystathionine gamma-lyase (cysA) gene, and LysR-like protein gene, complete cds	0.048	2459916	(AF005859) anon2D7 [Drosophila melanogaster]	0.18	
5201	D00723	Human mRNA for hydrogen carrier protein, a component of an enzyme complex, glycine synthase (EC 2.1.2.10)	3e-19	<none></none>	<none></none>	<none></none>	
5202	X89366	A.thaliana DNA for 40 kDa protein gene	0.025	1209669	(U38810) CAGR1 [Homo sapiens] >gi 3098420 (AF040945) homeotic regulator homolog MAB21 [Mus musculus]	0.008	
5203	AF067158	HIV-1 isolate 301905 from India, complete genome	2.4	<none></none>	<none></none>	<none></none>	
5204		Human ribosomal protein L9 gene, 5' region and complete cds.	5e-37	<none></none>	<none></none>	<none></none>	
5205		Lycopersicon esculentum COP1 homolog (COP1) mRNA, complete cds	7e-37		(AF029984) COP1 homolog [Lycopersicon esculentum]	2e-49	
5206	j (	Mus musculus cdc37 homolog mRNA, complete cds	2e-17		(AF035530) CDC37 [Gallus gallus]	2e-22	

	Nearest Ne	ighbor (BlastN vs. (	Genbank)	Nearest Neighbor (BlastX vs. Non-Redundant Proteins)				
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE		
ID	TICOEDOIOT	Discidi non	- VALUE	recession	DESCRIPTION	IVALUE		
5207	U07745	Lycopersicon	4e-32	533707	(U12536) 3-	4e-49		
		esculentum			methylcrotonyl-			
1		biotin-containing subunit of			CoA carboxylase precursor			
		methylcrotonyl-			precursor			
		CoA carboxylase						
		mRNA, partial						
5208	X74465	cds. Human	1.3	3879121	(Z70310)	2e-56		
3200	X74403	papillomavirus	1.5	36/9121	predicted using	26-30		
		type 10 genomic			Genefinder;	:		
•		DNA			Similarity to			
					Mouse ankyrin			
					(PIR Acc. No. S37771); cDNA			
					EST			
i					EMBL:T01923			
					comes from this			
					gene; cDNA EST EMBL:D32335			
					comes from this			
		,			gene; cDNA EST			
					EMBL:D32723			
					comes from this gene; cDNA ES			
			ľ		Genefinder;			
				·	Similarity to M			
5209	X99261	A.evecta gene	0.14		(AF005665)	7.6		
		encoding blue- light		,	properdin [Homo			
		photoreceptor,			sapiens]			
		intron						
5210	M35296	Human tyrosine	1.1	*	(U42841) short	0.61		
		kinase arg gene mRNA.			region of weak similarity to			
		IIIRNA.			chicken limb	ľ		
		İ			deformity protein			
				ļ	(PIR:S24286)			
] ]	ļ				[Caenorhabditis			
5211	Z57610	H.sapiens CpG	e-102		elegans] (L10409) fork	le-16		
	i	DNA, clone	0-102		head related	16-10		
		187a10, reverse		P .	protein [Mus			
		read			musculus]			
		cpg187a10.rt1a.						

	Nearest No	est Neighbor (BlastN vs. Genbank) Nearest Neighbor (BlastX vs. Non-Redu					
050				Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
5212	X85753	Homo sapiens mRNA for CDK8 protein kinase > :: emb A61243 A61 243 Sequence 1 from Patent WO9709432	6e-59	1171821	NADH- UBIQUINONE OXIDOREDUCT ASE CHAIN 5 >gi 559499 gnl PI D e1192548 (X54253) ND5 protein	9.5	
5213	U27341	Bos taurus endothelin converting enzyme-2 Sequence 1 from patent US 5736376	7e-61	2136744	endothelin converting enzyme-2 - bovine	3e-29	
5214	U63648	Mus musculus p160 myb- binding protein (P160) mRNA, complete cds	4e-58	2645205	(U63648) p160 myb-binding protein [Mus musculus]	2e-34	
5215	AF035940	Homo sapiens MAGOH mRNA, complete cds	e-140	2306969	(AF007860) xl- Mago [Xenopus laevis]	3e-76	
5216	X80045	O.aries mRNA for acetyl-CoA carboxylase	2e-54	542750	acetyl-CoA carboxylase (EC 6.4.1.2) - human sapiens] >gi 740964 prf  20 06242A Ac-CoA carboxylase	8e-10	
5217		R.norvegicus RNA for DNA topoisomerase II.	e-134		(Z68315) Similarity to Human MAP kinase phosphatase-1 (SW:PTN7_HUM AN) [Caenorhabditis elegans]	3e-12	
5218		Homo sapiens MAGOH mRNA, complete cds	e-143	2330011	(AF007862) mm- Mago [Mus musculus] >gi 2909828 (AF035939) similar to mago nashi [Mus musculus] >gi 2909830	7e-81	

	Nearest Ne	ghbor (BlastN vs. C	Genbank)	Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
5219	Z72521	Human DNA sequence from cosmid N29F4 on chromosome 22q11.2-qter contains STS	6e-04	<none></none>	<none></none>	<none></none>	
5220	S74340	{clone E572, estrogen induced gene} [rats, Sprague-Dawley, hypothalamus, mRNA Partial, 130 nt]	4e-29	<none></none>	<none></none>	<none></none>	
5221	AL008711	Human DNA sequence from PAC 390N22 on chromosome Xp22.2	0.33	1184707	(U40868) folylpolyglutamate synthetase [Homo sapiens]	7.9	
5222	AE000012	Mycoplasma pneumoniae section 12 of 63 of the complete genome	0.15	<none></none>	<none></none>	<none></none>	
5223	D78333	Human mRNA for testis-specific TCP20, complete cds	e-113	2501141	T-COMPLEX PROTEIN 1, ZETA-LIKE SUBUNIT (TCP- 1-ZETA-LIKE) (CCT-ZETA- LIKE) TCP20 [Homo sapiens]	2e-42	
5224	AF042333	Oryza sativa 24- methylene lophenol C24(1)methyltran sferase mRNA, complete cds	0.003	3883124	(AF082300) arabinogalactan- protein [Arabidopsis thaliana]	0.006	
5225	U15426	Human anonymous mRNA sequence with CCA repeat region.	4e-06		(U42438) similar to S. cerevisiae longevity-assurance protein 1 (SP:P38703) [Caenorhabditis elegans]	0.34	

	Nearest Ne	ighbor (BlastN vs.	Genbank)	Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE	
5226	AF052497	Homo sapiens clone B18 unknown mRNA	0.003	1144514	(U34781) Antho- LWamidII preprohormone [Anthopleura elegantissima] >gi 1586846 prf  2 204411A prepro- hormone	4.3	
5227	D86590	Zinnia elegans mRNA for cinnamyl alcohol dehydrogenase, partial cds	0.13	<none></none>	<none></none>	<none></none>	
5228	AF081144	Rattus norvegicus CL1AA mRNA, complete cds		1718004	TEGUMENT PROTEIN UL49 HOMOLOG herpesvirus 1] >gi 995634 (Z54206) UL49 [Bovine herpesvirus 1] >gi 2653299 gnl PI D e1187295 (AJ004801) virion protein (tegument) [Bovine herpesvirus type 1.1]	1.4	
5229		Human X chromosome enhancer-like sequence.	6e-04	<none></none>	<none></none>	<none></none>	
5230		Mus musculus bone morphogenetic protein (Bmp-1) mRNA, complete cds.	1.2	<none></none>	<none></none>	<none></none>	
5231	<none></none>	<none></none>	<none></none>		(AL021687) putative protein [Arabidopsis thaliana] >gi 2832633 gn1 PI D e1249651 (AL021711) putative protein [Arabidopsis thaliana]	9e-36	

	Nearest Ne	ighbor (BlastN vs. (	Genbank)	Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	DESCRIPTION	P VALUE	
5232	U27341	Bos taurus endothelin converting enzyme-2 Sequence 1 from patent US 5736376	1e-22	2136744	endothelin converting enzyme-2 - bovine	2e-09	
5233	M81840	Human NRL gene product mRNA, complete cds.	0.030	3875740	(Z81497) similar to mannosyloligosaccharide alpha-1, 2-mannosidase; cDNA EST EMBL:D67155 comes from this gene; cDNA EST EMBL:D64219 comes from this gene; cDNA EST yk260e12.3 comes from this gene; cDNA EST yk260e12.5 comes from this gene; cDNA EST yk260e12.5 comes f	6e-18	
5234	AJ000097	Homo sapiens mRNA for EYA1B gene	2.7	3395586	(AL031179) similarity to phosphomannomu tases [Schizosaccharom yces pombe]	6e-38	
5235	U30788	Rattus norvegicus Tclone4 mRNA	1e-68	3523162	(AF076292) TGF- beta/activin signal transducer FAST- 1p	1.4	
5236	U88964	Human HEM45 mRNA, complete cds	0.0	2062680	(U88964) HEM45 [Homo sapiens]	7e-77	
5237	AF061016	Homo sapiens UDP-glucose dehydrogenase (UGDH) mRNA, complete cds	0.0	3127127	(AF061016) UDP- glucose dehydrogenase [Homo sapiens] dehydrogenase [Homo sapiens]	5e-90	
5238	D43921	Mouse AZ1 mRNA for pre- acrosome localization protein, complete cds	3e-15		acrosomal protein AZ1 - mouse localization protein [Mus musculus]	0.007	

	Nearest Ne	eighbor (BlastN vs. (	Genhank)	Nearest Neighbor (BlastX vs. Non-Redundant			
050				Proteins)			
SEQ ID	ACCESSION		P VALUE	ACCESSION	DESCRIPTION	PVALUE	
5239	AF056022	Homo sapiens p60 katanin mRNA, complete cds	0.0	3283072	(AF056022) p60 katanin [Homo sapiens]	2e-60	
5240	U77949	Human Cdc6- related protein (HsCDC6) mRNA, complete cds	1e-83	<none></none>	<none></none>	<none></none>	
5241	AJ005016	Homo sapiens mRNA for putative ABC transporter, partial	0.0	3005931	(AJ005016) ABC transporter [Homo sapiens]	3e-70	
5242	X56756	Sheep mRNA for tumor necrosis factor alpha	4.5	<none></none>	<none></none>	<none></none>	
5243	AF020833	Homo sapiens eukaryotic translation initiation factor 3 subunit (p42) mRNA, complete cds	0.0	2460200	(AF020833) eukaryotic translation initiation factor 3 subunit [Homo sapiens]	e-158	
5244	X69878	H.sapiens Flt4 mRNA for transmembrane tyrosine kinase	4e-43	<none></none>	<none></none>	<none></none>	
5245		Human endogenous retroviral protease mRNA, complete cds.	1e-66	<none></none>	<none></none>	<none></none>	
5246		Human Gps1 (GPS1) mRNA, complete cds	2e-54		(U20285) Gps1 [Homo sapiens]	8e-20	
5247		Homo sapiens huntingtin- interacting protein HYPA/FBP11 (HYPA) mRNA, partial cds	5e-75		(AF049528) huntingtin- interacting protein HYPA/FBP11	2e-20	

	Nearest Ne	ighbor (BlastN vs. 0	Genbank)	Nearest Neighbor (BlastX vs. Non-Redundant Proteins)				
SEQ	ACCESSION	DESCRIPTION	P VALUE	ACCESSION		P VALUE		
ID	ACCESSION	DESCRIPTION	1 VALUE	ACCESSION	DESCIAI HOW	1 VALUE		
5248	U87277	Human splicing factor SRp30c gene, exon 1	0.14	267449	HYPOTHETICAL 12.5 KD PROTEIN ZK637.2 IN CHROMOSOME III >gi 102507 pir  S1 5787 hypothetical protein 1 (cosmid ZK637) — Caenorhabditis elegans Genefinder; cDNA EST yk217b5.3 comes from this gene; cDNA EST yk217b5.5 comes from this gene; cDNA EST yk217b5.5 comes from this gene; cDNA EST yk340g12.3	le-08		
5249	D16919	Human HepG2 3' region cDNA, clone hmd3e06	e-164	3152559	(AC002986) Similarity to A. thaliana gene product F21M12.20, gb AC000132. EST gb Z25651 comes from this gene. [Arabidopsis thaliana]	2e-52		
5250	AJ006064	Rattus norvegicus mRNA for coronin-like protein	e-142		(AJ006064) coronin-like protein [Rattus norvegicus]	5e-73		
5251	AB011000	Mus musculus mRNA for choline/ethanola mine kinase, complete cds	1e-18	2780752	(AB006607) choline/ethanolam ine kinase	0.001		

	Nearest Neighbor (BlastN vs. Genbank)			Nearest Neighbor (BlastX vs. Non-Redundant		
SEQ ID	ACCESSION	DESCRIPTION	P VALUE	ACCESSION	Proteins) DESCRIPTION	P VALUE
5252	X80169	M.musculus mRNA for 200 kD protein	0.0		PROTEIN TSG24 (MEIOTIC CHECK POINT REGULATOR) >gi 1083553 pir  A 55117 tsg24 protein - mouse	e-150

**Table 3** Polynucleotides encoding gene products of a protein family or having a known functional domain(s).

1010 1111 2	derivation derivation.					
SEQ ID NO:	Validation Sequence	Biological Activity (Profile)	Start	Stop	Score	Direction
3920	393.E10.sp6:148957	7tm_1	531	710	9520	for
2667	172.F10.sp6:133946	7tm 2	45	724	8708	rev
2758	177.C6.sp6:134733	7tm 2	41	697	9828	rev
2933	184.C7.sp6:135556	7tm 2	3	834	8987	for
3129	121.E12.sp6:131940	7tm_2	245	1324	9550	rev
3365	172.A7.sp6:133883	7tm 2	94	761	8743	rev
3418	123.F9.sp6:132333	7tm 2	203	585	8785	rev
3419	123.F9.sp6:132333	7tm_2	203	585	8785	rev
3597	394.G2.sp6:149165	7tm 2	73	793	9209	for
3648	370.C5.sp6:141726	7tm_2	76	770	9269	for
3686	370.B1.sp6:141710	7tm 2	89	662	8791	for
3695	368.A12.sp6:141322	7tm 2	121	719	9015	rev
3696	368.A12.sp6:141322	7tm 2	121	719	9015	rev
4172	219.C10.sp6:139007	7tm 2	46	774	11394	rev
4216	368.D11.sp6:141357	7tm_2	66	775	9384	rev
4228	368.A11.sp6:141321	7tm_2	7	1079	9097	for
4441	99.F7.sp6:131296	7tm_2	534	1265	10956	rev
4442	99.F7.sp6:131296	7tm_2	534	1265	10956	rev
4482	100.D2.sp6:131459	7tm_2	122	1404	9296	rev
4495	395.B12.sp6:149307	7tm_2	79	1432	10427	rev
4525	90.B4.sp6:130874	7tm_2	4	691	9435	for
4616	100.D5.sp6:131462	7tm_2	655	1349	9255	for
4653	100.D7.sp6:131464	7tm_2	357	1346	11461	rev
4654	100.D7.sp6:131464	7tm_2	357	1346	11461	rev
4658	100.H6.sp6:131511	7tm_2	119	1035	10001	rev
4659	100.G6.sp6:131499	7tm_2	363	1188	9901	rev
4660	100.F6.sp6:131487	7tm_2	50	1127	8799	for
4661	100.F6.sp6:131487	7tm_2	50	1127	8799	for
4710	367.H9.sp6:141210	7tm_2	143	1266	11883	rev
4755	370.F4.sp6:141761	7tm_2	78	704	8942	for
4856	367.H11.sp6:141212	7tm_2	176	1227	9975	rev
4885	123.E10.sp6:132322	7tm_2	210	691	9071	rev
4900	123.E10.sp6:132322	7tm_2	210	691	9071	rev
4901	123.E10.sp6:132322	7tm_2	210	691	9071	rev
2656	176.H11.sp6:134606	ANK	207	290	4450	for
2555	180.C9.sp6:135947	asp	156	670	6710	for
3632	368.H11.sp6:141405	asp	136	1226	6880	rev
4205	368.B5.sp6:141327	asp	309	806	6073	for
4251	369.D6.sp6:141546	asp	434	1332	6263	rev
4253	396.F9.sp6:149544	asp	97	1106	5999	rev
4261	216.G10.sp6:139247	asp	74	703	6188	rev
4365	122.H12.sp6:132168	asp	152	1040	6183	rev
4498	80.H6.sp6:130297	asp	61	418	5944	rev
4664	172.E5.sp6:133929	asp	219	976	6434	for
4718	185.D9.sp6:135762	asp	31	872	5944	rev
4733	185.D9.sp6:135762	asp	31	872	5944	rev
4746	176.B10.sp6:134533	asp	253	1446	6079	rev
		=				

SEQ I	ID Validation Sequence	Biological		rt Stop	Score	Direction
4822	177.F3.sp6:134766	Activity (Profile asp	0	894	6336	
4854	184.F11.sp6:135596	·	61	737	6416	rev
4856	367.H11.sp6:141212	asp asp	81	1187	6182	rev
4929	180.E6.sp6:135968	asp	81	706	6150	rev for
4931	180.E6.sp6:135968	asp	81	706	6150	for for
2723	180.F2.sp6:135976	ATPases	135	627	11664	for
2842	217.H11.sp6:139452	ATPases	2	701	5972	
3019	216.B1.sp6:139178	ATPases	170	616	6150	for
3046	121.B8.sp6:131900	ATPases	13	635	5867	for
3190	80.D2.sp6:130245	ATPases	13	386	6068	rev for
3290	176.C6.sp6:134541	ATPases	85	579	5883	
3670	369.C10.sp6:141538	ATPases	329	730	6206	for
3998	394.H8.sp6:149183	ATPases	21	571	5954	for
4119	218.F11.sp6:138852	ATPases	313	816	6057	rev for
4159	219.A7.sp6:138980	ATPases	88	662	6145	for
4223	368.F9.sp6:141379	ATPases	178	648	5937	for
4384	181.G11.sp6:135354	ATPases	362	769	5900	for
4473	369.B4.sp6:141520	ATPases	4	412	14130	rev for
4540	218.C8.sp6:138813	ATPases	12	576	5782	for
4560	404.G6.sp6:162933	ATPases	86	605	6001	rev
4689	367.H8.sp6:141209	ATPases	17	476	5905	rev rev
4785	184.E5.sp6:135578	ATPases	184	632	5943	for
4792	184.C6.sp6:135555	ATPases	333	813	5773	for
4847	184.B11.sp6:135548	ATPases	14	498	6140	for
5041	377.C1.sp6:141918	ATPases	4	655	5933	for
3404	176.F10.sp6:134581	Bcl-2	69	356	16419	for
4036	367.F5.sp6:141182	bromodomain	40	210	8810	for
4489	369.D3.sp6:141543	bromodomain	63	230	10270	for
3408	172.E1.sp6:133925	BZIP	146	298	4066	for
3951	393.G5.sp6:148976	BZIP	116	304	5931	for
4850	172.E9.sp6:133933	BZIP	91	260	4366	for
3618	370.B12.sp6:141721	cyclin	118	324	8980	for
3895	395.G6.sp6:149361	cyclin	11	281	6930	for
4536	395.G8.sp6:149363	cyclin	12	279	5950	for
4455	99.F5.sp6:131294	Cys-protease	72	348	18479	for
4684	180.D1.sp6:135951	Cys-protease	38	992	10103	rev
4688	180.D1.sp6:135951	Cys-protease	38	992	10103	rev
4801	177.E4.sp6:134755	Cys-protease	48	326	19999	for
4659	100.G6.sp6:131499	DAG_PE_bind	605	702	6290	rev
4821	377.C8.sp6:141925	Dead_box_helic	172	828	7867	rev
5083	216.A1.sp6:139166	Dead_box_helic	44	589	26532	for
2734	177.G4.sp6:134779	EFhand	79	153	3780	for
2893	185.A1.sp6:135718	EFhand	287	358	2580	rev
3775	377.A5.sp6:141898	EFhand	477	563	3010	for
4056	367.B7.sp6:141136	<b>EFhand</b>	225	272	2500	rev
4152	218.B10.sp6:138803	EFhand	40	114	2640	rev
4153	218.B10.sp6:138803	EFhand	40	114	2640	rev
4154	218.C10.sp6:138815	EFhand	39	113	2640	rev
4905	393.H12.sp6:148995	EFhand	145	231	4640	for
4943	219.A9.sp6:138982	EFhand	685	750	2550	rev

					_	
_	Validation Sequence	Biological		Stop	Score	Direction
NO:		Activity (Profile)		<b></b>		
2849	218.B5.sp6:138798	Ets_Nterm	340	531	10400	for
2728	180.A2.sp6:135916	FNtypeII	291	423	6400	rev
3018	216.C1.sp6:139190	FNtypeII	501	634	6460	for
4496	218.G1.sp6:138854	FNtypeII	20	141	6180	rev
4914	393.H8.sp6:148991	FNtypeII	448	576	6110	for
2504	181.C3.sp6:135298	G-alpha	66	715	8084	rev
3290	176.C6.sp6:134541	G-alpha	62	690	9062	for
4288	121.B4.sp6:131896	G-alpha	46	447	21415	for
4444	217.D12.sp6:139405	G-alpha	15	702	40404	for
4562	404.B7.sp6:162874	G-alpha	120	682	8424	for
2503	180.A11.sp6:135925	helicase_C	165	479	4494	for
4469	369.C4.sp6:141532	helicase_C	559	756	3732	rev
5020	185.D12.sp6:135765	helicase_C	381	534	5000	for
4241	396.H8.sp6:149567	homeobox	80	230	5170	for
2550	180.E5.sp6:135967	mkk	342	612	5791	for
3407	172.F1.sp6:133937	mkk	94	669	5688	rev
3451	123.A2.sp6:132266	mkk	26	378	7889	for
3600	394.B3.sp6:149106	mkk	32	782	9544	for
3646	370.H4.sp6:141785	mkk	18	307	9394	for
3680	369.G11.sp6:141587	mkk	182	725	5375	for
4175	219.H10.sp6:139067	mkk	280	723	15454	for
4205	368.B5.sp6:141327	mkk	249	725	5502	for
4278	181.C9.sp6:135304	mkk	168	880	5551	rev
4322	121.F6.sp6:131946	mkk	111	730	5399	for
4777	177.E2.sp6:134753	mkk	288	636	5720	rev
4482	100.D2.sp6:131459	PDEase	849	1195	5945	for
2578	181.H11.sp6:135366	protkinase	116	710	5531	for
2712	177.G7.sp6:134782	protkinase	6	511	5445	for
2835	218.C1.sp6:138806	protkinase	127	747	5492	for
2843	218.E1.sp6:138830	protkinase	64	726	5592	rev
2971	217.F4.sp6:139421	protkinase	83	702	5818	rev
3009	217.A4.sp6:139361	protkinase	57	682	5395	rev
3084	121.E2.sp6:131930	protkinase	69	658	5593	rev
3226	100.D8.sp6:131465	protkinase	174	620	5453	for
3274	100.C3.sp6:131448	protkinase	228	736	5616	for
3356	172.B5.sp6:133893	protkinase	148	715	5381	for
3377	172.B6.sp6:133894	protkinase	119	775	5616	for
3451	123.A2.sp6:132266	protkinase	24	384	9797	for
3600	394.B3.sp6:149106	protkinase	357	780	11395	for
3635	377.G11.sp6:141976	protkinase	117	739	5992	for
3646	370.H4.sp6:141785	protkinase	24	275	8338	for
3665	370.F2.sp6:141759	protkinase	33	800	5658	for
3669	369.B10.sp6:141526	protkinase	1	482	5504	rev
3700	369.D2.sp6:141542	protkinase	28	661	5428	for
3710	369.G6.sp6:141582	protkinase	71	631	5751	for
3791	396.C11.sp6:149510	protkinase	27	709	5793	rev
3905	393.H7.sp6:148990	protkinase	88	680	5470	rev
3919	393.D10.sp6:148945	protkinase	72	594	5617	for
4044	367.G4.sp6:141193	protkinase	30	699	5439	for
4072	368.B2.sp6:141324	protkinase	44	800	5556	for
	•	-				

SEQ ID	Validation Sequence	Biological		t Stop	Score	Direction
4117	218.D11.sp6:138828	Activity (Profile	,	701		•
4175	219.H10.sp6:139067	protkinase	38	781	6423	for
4373	216.E5.sp6:139218	protkinase	277	717	15720	
4569		protkinase	115	710	5537	for
4755	100.C10.sp6:131455	protkinase	56	783	5556	rev
	370.F4.sp6:141761	protkinase	39	803	5635	for
4760	370.F3.sp6:141760	protkinase	188	775	5771	for
4807	184.H3.sp6:135612	protkinase	23	699	5515	for
5059	180.B5.sp6:135931	protkinase	182	671	5718	rev
5102	393.F4.sp6:148963	protkinase	28	650	5345	for
3671	369.D10.sp6:141550	ras	12	332	9802	for
3936	393.A3.sp6:148902	Thioredox	0	263	5887	rev
3927	393.F11.sp6:148970	TNFR_c6	151	261	6445	for
2956	184.E10.sp6:135583	transmembrane4	19	483	8339	rev
2981	217.E6.sp6:139411	transmembrane4	83	728	8417	for
3836	396.C9.sp6:149508	transmembrane4	300	924	9444	rev
4038	367.A6.sp6:141123	transmembrane4	32	495	8407	rev
4364	123.A1.sp6:132265	transmembrane4	1289	1548	8114	rev
4406	122.C1.sp6:132097	transmembrane4	6	535	8122	for
4431	122.E4.sp6:132124	transmembrane4	10	530	8829	for
4441	99.F7.sp6:131296	transmembrane4	613	1253	9443	rev
4442	99.F7.sp6:131296	transmembrane4	613	1253	9443	
4653	100.D7.sp6:131464	transmembrane4	335	1207	8255	rev
4654	100.D7.sp6:131464	transmembrane4	335	1207	8255	rev
4710	367.H9.sp6:141210	transmembrane4	398	1130	8352	rev
4944	180.H7.sp6:136005	transmembrane4	356	983	8356	rev
3381	176.D9.sp6:134556	trypsin	164	764	9670	rev
4684	180.D1.sp6:135951	trypsin	371	1229		rev
4688	180.D1.sp6:135951	trypsin	371	1229	10479	rev
2754	177.H6.sp6:134793	WD_domain	345	437	10479 6510	rev
3046	121.B8.sp6:131900	WD_domain	98	193		for
3227	100.B10.sp6:131443	WD_domain	544	642	6400	for
4243	121.A8.sp6:131888	WD_domain	93	188	6590	for
5046	185.F10.sp6:135787	WD_domain	382		6400	for
3129	121.E12.sp6:131940	Wnt_dev_sign	101	480 821	5880	for
3173	99.G6.sp6:131307	Wnt_dev_sign	49		12160	rev
3390	176.C9.sp6:134544	Wnt dev sign	249	880	12334	rev
3391	176.C9.sp6:134544	Wnt_dev_sign		854	11038	rev
3656	370.G6.sp6:141775	Wnt_dev_sign	249	854	11038	rev
3836	396.C9.sp6:149508		211	785	11490	rev
4253	396.F9.sp6:149544	Wnt_dev_sign	282	1017	12318	rev
4330	122.A2.sp6:132074	Wnt_dev_sign	482	1298	11217	rev
4359	123.B2.sp6:132278	Wnt_dev_sign	94	933	12383	rev
4364		Wnt_dev_sign	538	1435	11785	for
4375	123.A1.sp6:132265	Wnt_dev_sign	760	1544	12660	rev
4375	122.G10.sp6:132154	Wnt_dev_sign	29	884	11603	rev
	122.A2.sp6:132074	Wnt_dev_sign	94	933	12383	rev
4409	121.F12.sp6:131952	Wnt_dev_sign	9	734	11167	rev
	99.F7.sp6:131296	Wnt_dev_sign	560	1399	13749	rev
	99.F7.sp6:131296	Wnt_dev_sign	560	1399	13749	rev
	395.F10.sp6:149353	Wnt_dev_sign	100	907		rev
4586	123.A4.sp6:132268	Wnt_dev_sign	80	1122	11249	rev
		600				

SEQ ID NO:	Validation Sequence	Biological Activity (Profile)	Start	Stop	Score	Direction
4605	404.D5.sp6:162896	Wnt_dev_sign	31	816	11304	rev
4653	100.D7.sp6:131464	Wnt_dev_sign	467	1314	11882	rev
4654	100.D7.sp6:131464	Wnt_dev_sign	467	1314	11882	rev
4665	177.B11.sp6:134726	Wnt_dev_sign	137	1266	12708	rev
4668	177.B11.sp6:134726	Wnt_dev_sign	137	1266	12708	rev
4682	177.B11.sp6:134726	Wnt_dev_sign	137	1266	12708	rev
4710	367.H9.sp6:141210	Wnt_dev_sign	692	1481	12886	rev
4718	185.D9.sp6:135762	Wnt_dev_sign	129	890	11145	rev
4724	377.D2.sp6:141931	Wnt_dev_sign	400	1227	11044	rev
4733	185.D9.sp6:135762	Wnt_dev_sign	129	890	11145	rev
4856	367.H11.sp6:141212	Wnt_dev_sign	295	1669	13366	rev-
4866	377.D4.sp6:141933	Wnt_dev_sign	549	1380	14522	rev
4925	219.B12.sp6:138997	Wnt_dev_sign	312	1214	13188	rev
4959	219.B12.sp6:138997	Wnt_dev_sign	312	1214	13188	rev
3409	172.D1.sp6:133913	Y_phosphatase	476	804	6932	for
3418	123.F9.sp6:132333	Y_phosphatase	28	439	6096	rev
3419	123.F9.sp6:132333	Y_phosphatase	28	439	6096	rev
3657	370.H6.sp6:141787	Y_phosphatase	148	554	6481	for
3804	404.B10.sp6:162877	Y_phosphatase	104	466	6446	rev
3806	404.D10.sp6:162901	Y_phosphatase	9	614	6516	for
3974	395.F2.sp6:149345	Y_phosphatase	164	645	6093	rev
4238	121.E9.sp6:131937	Y_phosphatase	240	777	6147	rev
4263	216.F10.sp6:139235	Y_phosphatase	21	504	6342	for
4343	122.E9.sp6:132129	Y_phosphatase	381	807	6036	rev
4363	123.B1.sp6:132277	Y_phosphatase	61	510	6229	rev
4434	219.F4.sp6:139037	Y_phosphatase	2	261	10353	for
4473	369.B4.sp6:141520	Y_phosphatase	231	768	6110	rev
4629	404.E11.sp6:162914	Y_phosphatase	580	920	6005	rev
5094	217.A3.sp6:139360	Y_phosphatase	263	622	6222	rev
2738	177.A6.sp6:134709	Zincfing_C2H2	65	127	4380	for
2760	177.A6.sp6:134709	Zincfing_C2H2	65	127	4380	for
2832	218.B2.sp6:138795	Zincfing_C2H2	94	156	4940	for
3736	377.H8.sp6:141985	Zincfing_C2H2	495	557	4850	for
3762	377.G2.sp6:141967	Zincfing_C2H2	52	114	4380	for
3763	377.G2.sp6:141967	Zincfing_C2H2	52	114	4380	for
4794	377.G4.sp6:141969	Zincfing_C2H2	247	308	3930	for
5090	185.C4.sp6:135745	Zincfing_C2H2	238	300	4540	for
3774	377.E4.sp6:141945	Zincfing_C3HC4	128	244	9335	for
4477	181.E3.sp6:135322	Zincfing_C3HC4	321	445	8221	for

Table 19. Polynucleotides Specifically Expressed in ColonSEQSequence Nameclusterlib 1lib 2lib 15lib 16 lib 15 lib 16 lib 17 lib 18 lib 19 lib 20 ID clones clones clones clones clones clones clones NO: RTA00000197AF.e.24.1 39250 2 RTA00000197AR.e.12.1 22095 3 RTA00000196AF.e.16.1 39252 2 

	1.17.00.00170A1 .E.10.1	39232	2	U	U	U	U	U	U	0	
18	RTA00000196AF.c.17.1	39602	2	0	0	0	0	0	0	0	
21	RTA00000131A.g.19.2	36535	2	0	0	0	0	0	0	0	
22	RTA00000187AR.o.10.2	8984	4	3	0	0	0	2	0	0	
23	RTA00000198R.b.08.1	22636	3	0	0	0	0	0	0	0	
26	RTA00000200R.g.09.1	22785	3	0	0	0	0	0	0	0	
29	RTA00000200AF.b.19.1	22847	3	0	0	0	0	0	0	0	
31	RTA00000200F.m.15.1	22601	3	0	0	0	1	0	0	0	
37	RTA00000181AF.n.15.2	86128	1	0	0	0	0	0	0	0	
38	RTA00000196R.k.07.1	22443	2	0	0	0	0	0	0	1	
40	RTA00000200AR.e.02.1	36059	2	0	0	0	1	1	1	0	
48	RTA00000177AR.a.23.5	6995	4	2	0	0	0	0	0	0	
49	RTA00000198R.o.05.1	26702	2	0	0	0	0	0	0	0	
50	RTA00000201R.a.02.1	35362	2	0	0	0	0	0	0	0	
61	RTA00000197AF.h.11.1	22264	3	0	0	0	0	0	0	0	
66	RTA00000199F.c.09.2	16824	3	1	0	0	0	0	0	0	
75	RTA00000180AR.h.19.2	84182	1	0	0	0	0	0	0	0	
78	RTA00000199R.f.09.1	22907	3	0	0	0	0	0	0	0	
79	RTA00000199AF.p.4.1	10282	3	3	0	0	0	0	0	0	
85	RTA00000200R.o.03.1	22807	3	0	0	0	0	0	0	0	
86	RTA00000189AF.1.22.1	33333	1	1	0	0	0	0	0	0	
87	RTA00000195AF.d.20.1	37574	2	0	0	0	0	0	0	0	
92	RTA00000198AF.j.18.1	22759	3	0	0	0	0	0	0	0	
95	RTA00000180AF.g.3.1	9024	5	2	0	0	0	0	0	0	
102	RTA00000199R.j.08.1	37844	2	0	0	0	0	0	0	0	
103	RTA00000199F.e.10.1	22906	3 .	0	0	0	0	0	1	0	
105	RTA00000179AF.g.12.3	36390	2	0	0	0	0	0	0	0	
108	RTA00000183AR.h.23.2	18957	3	0	0	0	0	0	0	0	
109	RTA00000197AF.d.12.1	39546	2	0	0	0	0	0	0	0	
116	RTA00000181AR.k.24.3	7005	8	2	0	0	0	0	0	0	
119	RTA00000181AR.k.24.2	7005	8	2	0	0	0	0	0	0	
124	RTA00000199AR.m.06.1	19122	3	0	0	0	0	0	0	0	
129	RTA00000134A.d.10.1	18957	3	0	0	0	0	0	0	0	
137	RTA00000181AF.m.4.3	13238	4	1	0	0	0	0	0	0	
141	RTA00000196AF.c.6.1	23148	3	0	0	0	0	0	0	0	
142	RTA00000198AF.k.19.1	75879	1	0	0	0	0	0	0	0	
				602						-	

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
143	RTA00000199R.h.09.1	76020	1	0	0	0	0	0	0	0
144	RTA00000198AF.o.18.1	13018	4	0	0	0	1	0	0	0
148	RTA00000199F.h.17.2	36254	2	0	0	0	0	0	0	0
149	RTA00000181AR.h.06.3	87226	1	0	0	0	0	0	0	0
166	RTA00000198AF.f.21.1	22676	3	0	0	0	0	0	0	0
173	RTA00000200AR.b.07.1	17125	4	0	0	0	0	0	0	0
178	RTA00000200F.o.03.1	22807	3	0	0	0	0	0	0	0
180	RTA00000199AF.j.12.1	22461	3	0	0	0	0	0	0	0
185	RTA00000195AF.d.4.1	22766	3	0	0	0	0	0	0	0
194	RTA00000200R.k.01.1	40049	2	0	0	0	0	0	0	0
195	RTA00000198AF.c.10.1	77149	1	0	0	0	0	0	0	0
198	RTA00000197AR.e.07.1	86969	1	0	0	0	0	0	0	0
199	RTA00000199R.c.09.1	16824	3	1	0	0	0	0	0	0
206	RTA00000181AF.o.04.2	22205	3	0	0	0	0	0	0	0
207	RTA00000199AF.I.19.1	22460	3	0	0	0	0	0	0	0
208	RTA00000198AF.h.22.1	22366	2	1	0	0	0	0	0	0
211	RTA00000199AF.m.15.1	10101	3	0	0	0	0	0	0	0
212	RTA00000197AF.j.9.1	13236	4	1	0	0	0	0	0	0
230	RTA00000185AR.b.18.1	12171	3	2	0	0	0	0	0	0
235	RTA00000201AF.a.02.1	35362	2	0	0	0	0	0	0	0
236	RTA00000183AR.h.23.1	18957	3	0	0	0	0	0	0	0
238	RTA00000187AR.k.12.1	78415	1	0	0	0	0	0	0	0
242	RTA00000198AF.m.17.1	77992	1	0	0	0	0	0	0	0
243	RTA00000181AF.m.15.3	12081	4	0	0	0	0	0	0	0
248	RTA00000198R.c.14.1	39814	2	0	0	0	0	0	0	0
249	RTA00000200R.o.03.2	22807	3	0	0	0	0	0	0	0
251	RTA00000192AF.n.13.1	8210	2	6	0	0	0	0	0	0
256	RTA00000184AR.e.15.1	16347	4	0	0	0	0	0	0	0
260	RTA00000198R.m.17.1	77992	1	0	0	0	0	0	0	0
270	RTA00000178R.I.08.1	39648	2	0	0	0	0	0	0	0
278	RTA00000198AF.p.16.1	71877	1	0	0	0	0	0	0	0
280	RTA00000193AF.b.18.1	7542	8	0	0	2	1	0	I	0
284	RTA00000199F.d.10.2	22049	3	0	0	0	0	0	0	0
287	RTA00000200AF.b.07.1	17125	4	0	0	0	0	0	0	0
288	RTA00000181AR.i.06.3	19119	3	0	0	0	0	0	0	0
289	RTA00000196F.k.07.1	22443	2	0	0	0	0	0	0	1
294	RTA00000198AF.k.23.1	8995	2	5	0	0	0	0	0	0
296	RTA00000196AF.f.20.1	22774	3	0	0	0	0	0	0	0
300	RTA00000195AF.c.12.1	37582	2	0	0	0	0	0	0	0

SE ID NC	1 333 3 1 1 1 1 1	cluste			lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
302		40044	2		0	0	ì	0	0	0	0
307	11.03.2	18989	3		0	0	0	0	0	0	0
308		15066	4		0	0	0	0	0	0	0
310		22155	3		0	0	0	0	0	0	0
315	11000001991C.G.23,1	37477	2		0	0	0	0	0	0	0
319	11.05.1	18989	3		0	0	0	0		_	0
320		16290	4		0	0	0		:		0
325	4.10.10. 11/2010000102/11	37435	2		0	0	0	_	_	_	0
328	.g.07.1	22785	3	(	0	0	0	_	_	_	0
330		14391	3		1	0	0	_	_	_	0
331	RTA00000197AR.c.20.1	16282	4	(	)	0	_				0
337	RTA00000177AR.m.17.3	14391	3	1	l	0			_	_	0
342	RTA00000196AF.d.10.1	22256	3	(	)	0			_		0
343	RTA00000201F.a.18.1	16837	2	2	2	0	_	_		•	)
344	RTA00000198AF.o.02.1	68756	1	C	)	0			) (		
345	RTA00000187AF.h.21.1	39171	2	0	) (	0	0	_	) (	•	
347	RTA00000199F.b.03.2	38340	2	0	• •	) (	0 (	) (	•	`	
358	RTA00000198AF.g.7.1	13386	3	2	. (	) (	) (	) (	_	-	
362	RTA00000197AR.c.24.1	82498	i	0	(	) (	) (			•	
371	RTA00000197F.e.7.1	86969	1	0	{	) (	) (		•	-	
378	RTA00000181AF.k.24.3	7005	8	2	(	) (	) {	) 0		-	
382	RTA00000200AF.j.6.1	22902	3	0	C	) (	) (		-	_	
384	RTA00000196AF.h.17.1	39215	2	0	0	0	0		_	•	
392	RTA00000185AF.b.11.2	9024	5	2	0	0	0	0		0	
397	RTA00000198AF.b.22.1	38956	2	0	0	0	0	0	0	0	
399	RTA00000186AF.m.15.2	40122	2	0	0	0	0	0	0	0	
406	RTA00000199F.f.09.2	22907	3	0	0	0	0		0	0	
408		39383	2	0	0	0	0	0	0	0	
413		16751	4	0	0	0	0	0	0	0	
416	DTLOORGON		3	0	0	0	0	0	0	0	
418		78356	I	0	0	0	0	0	0	0	
424		78356	i	0	0	0	0	0	0	0	
426		36927 2	2	0	0	0	0	0	0	0	
429		39498 2	2	0	0	0	0	0	0	0	
430		8995 2	?	5	0	Ò	0	0	0	0	
432		26702 2		0	0	0	0	0	0	0	
433		22759 3		0	0	0	0	0	0	0	
435		16283 3		0	0	0	0	0	0	0	
438	RTA00000180AR.g.03.4	0024 5		2	0	0	0	0	0	0	
				60	1				_	U	

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
451	RTA00000200AF.b.20.1	40403	2	0	0	0	0	0	0	0
455	RTA00000198AF.d.12.1	21142	2	1	0	0	0	0	0	0
456	RTA00000200AF.b.12.1	22053	3	0	0	0	0	0	0	0
457	RTA00000191AR.I.7.2	14391	3	1	0	0	0	0	0	0
461	RTA00000190AF.e.13.1	38961	2	0	0	0	0	0	0	0
462	RTA00000196AF.n.17.1	12477	4	1	0	0	0	0	0	0
467	RTA00000195AF.b.19.1	77678	1	0	0	0	0	0	0	0
475	RTA00000187AR.m.3.3	17055	4	0	0	0	0	0	0	0
476	RTA00000200R.g.15.1	22898	3	0	0	0	0	0	0	0
482	RTA00000187AF.j.7.1	78091	1	0	0	0	0	0	0	0
485	RTA00000196AF.c.14.1	23105	3	0	0	0	0	0	0	0
486	RTA00000190AR.p.22.2	16368	4	0	0	0	0	0	0	0
	RTA00000198AF.b.8.1	22636	3	0	0	0	0	0	0	0
493	RTA00000177AF.m.17.1	14391	3	1	0	0	0	0	0	0
494	RTA00000200AF.k.1.1	40049	2	0	0			0	0	0
498	RTA00000190AF.h.12.1	12977	5	0	0			0	0	0
499	RTA00000199F.b.22.2	17018	4	0	0		0	0	0	0
508	RTA00000187AF.i.14.2	19406	2	1	0			0		0
511	RTA00000196AF.g.10.1	12498	3	I	1	0				0
	RTA00000184AF.e.14.1	16347	4	0				_	_	0
522	RTA00000178AR.h.17.2	23824	2	l	0	0	0	0		0
531	RTA00000195F.a.3.1	27179	2	0	0	0	0	0		0
544	RTA00000196F.j.13.1	23170	3	0	0	0	0	0		0
547	RTA00000196AF.g.8.1	39665	2	0	0	0	0	0		0
549	RTA00000198AF.c.16.1	26801	2	0	0	0	0			0
553	RTA00000201F.b.22.1	35728	2	0	0	0	0		_	1
559	RTA00000197AF.p.20.1	22795	3	0	0	0	0			0
563	RTA00000192AR.o.16.2	9061	5	2	0	0	0 (			0
565	RTA00000191AF.c.10.1	40422	2	0	0	0	0 (			0
568 I	RTA00000196AF.p.01.2	87143	1	0	0	0 (				)
578 I	RTA00000180AF.g.17.1	16653	3	1					_	)
583 I	RTA00000190AR.h.12.2	12977	5	0					_	)
585 F	RTA00000198AF.n.18.1	16715	3	1	0	0 (				)
586 F	RTA00000199R.o.11.1	23172	3	0						)
588 F	RTA00000191AF.b.4.1	14936	3	0		0 (			) (	
589 F	RTA00000192AF.1.1.1	16392	3			) (				
	RTA00000196R.c.14.2					) (				
	RTA00000195R.a.06.1					) (				
						) (				

	SEQ ID NO:	Sequence Name	cluster		lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
	612	RTA00000197AR.e.22.1	78758	1	0	0	0	0	0	0	0
	615	RTA00000197R.p.20.1	22795	3	0	0	0	0	0	0	0
	618	RTA00000192AF.a.14.1	6874	6	3	0	0	1	0	0	0
	623	RTA00000198R.b.24.1	19047	3	0	0 .	0	0	0	0	0
	627	RTA00000199F.h.15.2	22269	3	0	0	0	0	0	0	0
	628	RTA00000198AF.g.16.1	6602	1	1	0	0	0	0	0	0
	634	RTA00000192AF.j.6.1	11494	4	0	0	0	0	0	0	0
	635	RTA00000181AF.p.7.3	38773	2	0	0	0	0	0	0	0
	637	RTA00000200AF.g.15.1	22898	3	0	0	0	0	0	0	0
	643	RTA00000184AF.c.9.1	16245	4	0	0	0	0	0	0	0
	645	RTA00000177AF.k.9.1	16245	4	0	0	0	0	0	0	0
	649	RTA00000190AR.I.19.2	88204	1	0	0	0	0	0	0	0
	662	RTA00000201R.a.15.1	57347	1	0	0	0	0	0	0	0
	664	RTA00000195R.a.23.1	86432	1	0	0	0	0	0	0	0
	670	RTA00000186AF.p.17.3	38383	2	0	0	0	0	0	0	0
	674	RTA00000197AR.e.24.1	39250	2	0	0	0		0	0	0
	683	RTA00000187AR.j.01.1	79028	1	0	0	0		0	0	0
1	686	RTA00000201F.f.07.1	51116	1	0	0			0	0	0
+	694	RTA00000201R.c.19.1	22357	2	1	0	0	0	0	-	0
•	702	RTA00000177AR.b.8.5	17062	3	0	0			_		0
•	712	RTA00000201F.b.21.1	9071	3	4	0	0			_	0
•	717	RTA00000200F.o.10.2	36432	2	0	0	0			_	0
•	718	RTA00000196F.I.14.2	23144	3	0	0	0			_	0
•	725	RTA00000197AF.b.1.1	12134	1	1	0	0			_	0
•	733	RTA00000200AF.d.20.1	26600	2	0	0	0	0			0
-	743	RTA00000178AF.k.9.1	16342	3	0	0	0	0 (			0
-	748	RTA00000198AF.b.24.1	19047	3	0	0	0	0 (			0
-	757	RTA00000406F.d.16.1	15040	2	2	0	0				0
7	760	RTA00000408F.o.12.2	78578	1	0	0	0 (			_	0
7	761	RTA00000119A.j.15.1	79623	1	0	0 (	0 (		), C		0
7	762	RTA00000413F.d.12.1	66467	1	0	0 (	0 (	) (			)
7	763	RTA00000423F.i.12.1	9118	4	3	0 (	0 (	) (	_		)
7	766	RTA00000411F.k.05.1	64777	1	0	0 (	) (	) (			
7	769	RTA00000419F.b.09.1	78128	1	0 (	0 (	) (				
7	772	RTA00000411F.m.15.1	78014	1 (	0 (	0 (	) (				
7	74	RTA00000123A.k.23.1	80313	1 (	) (	) (	) (				
7	77	RTA00000130A.m.15.1	81630	1 (	) (	) (		·	-	_	
7	78	RTA00000411F.k.20.1	64973	1 (	) (			_	_	-	
7	80	RTA00000418F.k.05.1	73021	1 (	) (	) (			_		
							_	·	v	U	•

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
781	RTA00000423F.h.18.1	37972	2	0	0	0	0	0	0	0
783	RTA00000422F.p.06.2	39282	2	0	0	0	0	0	0	0
784	RTA00000404F.n.16.2	39095	2	0	0	0	0	0	0	0
785	RTA00000411F.m.24.1	77568	1	0	0	0	0	0	0	0
786	RTA00000134A.j.10.1	81383	]	0	0	0	0	0	0	0
787	RTA00000409F.j.02.1	76417	1	0	0	0	0	0	0	0
788	RTA00000403F.j.15.1	23840	2	1	0	0	0	0	0	0
789	RTA00000411F.n.11.1	77276	1	0	0	0	0	0	0	0
790	RTA00000339F.i.13.1	5970	6	4	0	0	0	0	0	0
792	RTA00000406F.o.15.1	37482	2	0	0	0	0	0	0	0
793	RTA00000412F.g.04.2	64457	1	0	0	0	0	0	0	0
795	RTA00000352R.1.06.1	40343	2	0	0	0	0	0	0	0
796	RTA00000419F.b.12.1	63148	1	0	0	0	0	0	0	0
797	RTA00000423F.k.17.2	37512	2	0	0	0	0	0	0	0
799	RTA00000418F.k.14.1	76133	1	0	0	0	0	1	0	0
800	RTA00000409F.1.12.1	26755	1	0 .	0	0	0	0	0	0
801	RTA00000404F.c.20.1	39088	2	0	0	0	0	0	1	0
802	RTA00000423F.g.09.1	38958	2	0	0	0	0	0	0	0
804	RTA00000406F.d.12.1	38575	2	0	0	0	0	0	0	0
805	RTA00000411F.f.02.1	63386	1	0	0	0	0	0	0	0
806	RTA00000129A.n.21.1	79381	1	0	0	0	0	0	0	0
807	RTA00000409F.m.12.1	73490	1	0	0	0	0	0	0	0
808	RTA00000410F.c.04.1	74099	1	0	0	0	0	0	0	0
810	RTA00000406F.m.09.1	26891	2	0	0	0	0	0	0	0
811	RTA00000411F.b.06.1	77884	1	0	0	0	0	0	0	0
812	RTA00000409F.1.21.1	73143	1	0	0	0	0	0	0	0
818	RTA00000404F.1.20.2	38638	2	0	0	0	0	0	0	0
819	RTA00000413F.d.18.1	65305	1	0	0	0	0	0	0	0
820	RTA00000404F.p.04.2	39069	2	0	0	0	0	0	0	0
821	RTA00000405F.g.19.2	37150	2	0	0	0	0	0	0	0
822	RTA00000409F.a.22.1	75200	1	0	0	0	0	0	0	0
824	RTA00000405F.o.18.1	11016	4	2	0	0	0	0	0	0
829	RTA00000408F.e.22.2	26930	1	0	0	0	0	0	0	0
831	RTA00000413F.d.16.1	63331	1	0	0	0	0	0	0	0
834	RTA00000419F.g.08.1	66700	1	0	0	0	0	0	0	0
835	RTA00000122A.g.16.1	81366	I	0	0	0	0	0	0	0
836	RTA00000419F.c.16.1	65254	I	0	0	0	0	0	0	0
837	RTA00000411F.b.03.1	23634	1	2	0	0	0	0	0	0
842	RTA00000403F.1.20.1	18267	1 .	0	0	0	0	0	0	0

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones		lib 19 clones	lib 20 clones
845	RTA00000411F.a.02.1	78537	1	0	0	0	0	0	0	0
847	RTA00000412F.l.04.1	66372	1	0	0	0	0	0	0	0
849	RTA00000406F.a.23.1	38712	2	0	0	0	0	0	0	0
851	RTA00000120A.n.19.3	80004	1	0	0	0	0	0	0	0
852	RTA00000403F.e.01.1	38965	2	0	0	0	0	0	0	0
853	RTA00000411F.I.03.1	62702	1	0	0	0	0	0	0	0
<b>8</b> 56	RTA00000121A.m.2.1	81064	1	0	0	0	0	0	0	0
858	RTA00000418F.j.12.1	73316	1	0	0	0	0.	0	0	0
862	RTA00000125A.g.16.1	21497	2	1	0	0	0	0	0	0
863	RTA00000418F.o.18.1	78676	1	0	0	0	0	0	0	0
865	RTA00000408F.k.14.1	73856	1	0	0	0	0	0	0	0
871	RTA00000403F.o.15.1	39140	2	0	0	0	0	0	0	0
872	RTA00000341F.m.13.1	26502	1	0	0	0	0	0	0	0
873	RTA00000408F.h.03.1	78382	1	0	0	0	0	0	0	0
874	RTA00000423F.k.05.1	37472	2	0	0	0	0	0	0	0
876	RTA00000418F.p.19.1	78544	1	0	0	0	0	0	0	0
877	RTA00000420F.f.06.1	64812	1	0	0	0	0	0	0	0
878	RTA00000122A.j.18.1	81317	1	0	0	0	0	0	0	0
879	RTA00000420F.d.05.1	64432	1	0	0	0	0	0	0	0
880	RTA00000403F.m.18.1	39185	2	0	0	0	0		0	0
882	RTA00000411F.j.05.1	40709	1	1	0	0	0		_	0
883	RTA00000403F.a.04.1	23529	2	1	0	0	0			0
885	RTA00000406F.f.12.1	21895	2	1	0	0	0	0	_	0
886	RTA00000418F.g.22.1	74837	1	0	0	0	0	0	_	0
888	RTA00000404F.1.20.1	38638	2	0	0	0	0	0	0	0
889	RTA00000408F.i.08.2	75811	1	0	0	0	0	0		0
890	RTA00000122A.d.5.1	81155	1	0	0	0	0	0	0	0
894	RTA00000419F.b.19.1	65534	1	0	0	0 .	0	0		0
896	RTA00000418F.k.19.1	74932	1	0	0	0	0	0		0
900	RTA00000419F.g.12.1	66171	1	0	0	0	0	0		0
901	RTA00000404F.n.11.2	38001	2	0	0	0	0	0		0
904	RTA00000419F.o.24.1	65092	1	0	0	0	0			0
905	RTA00000419F.k.19.1	75447	1	0	0	0	0	0 (		0
907	RTA00000127A.i.20.1	81418	1	0	0	0	0	0 (		0
908	RTA00000422F.g.22.1	22561	3	0	0	0	0 (	0 (		0
910	RTA00000413F.h.13.1	65190	1 (	0	0			_		0
913	RTA00000348R.j.16.1	7005	8 2	2	0 (					)
916	RTA00000418F.n.22.1	79062	1 (							)
917	RTA00000406F.l.08.1	39016	2 (	) (	0 (			) (		)

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones		lib 19 clones	lib 20 clones
920	RTA00000409F.j.07.1	75190	1	0	0	0	0	0	0	0
923	RTA00000411F.e.22.1	63638	i	0	0	0	0	0	0	0
924	RTA00000347F.a.17.1	16723	3	1	0	0	0	0	0	0
926	RTA00000404F.n.20.1	26865	2	0	0	0	0	0	0	0
929	RTA00000404F.b.02.1	38984	2	0	0	0	0	0	0	0
931	RTA00000403F.b.10.1	73268	1	0	0	0	0	0	0	0
932	RTA00000406F.i.12.1	39080	2	0	0	0	0	0	0	0
933	RTA00000406F.h.08.1	16228	2	2	0	0	0	0	0	0
934	RTA00000418F.i.19.1	79180	1	0	0	0	0	0	0	0
936	RTA00000412F.h.21.1	64348	1	0	0	0	0	0	0	0
938	RTA00000120A.g.18.1	81255	1	0	0	0	0	0	0	0
940	RTA00000423F.j.05.1	37958	2	0	0	0	0	0	0	0
941	RTA00000132A.k.6.1	81284	1	0	0	0	0	0	0	0
943	RTA00000406F.p.04.1	37458	2	0	0	0	0	0	0	0
944	RTA00000347F.a.13.1	22446	3	0	0	0	0	0	0	0
945	RTA00000419F.p.23.1	64748	1	0	0	0	0	0	0	0
946	RTA00000419F.d.17.1	64353	1	0	0	0	0	0	0	0
949	RTA00000124A.k.5.1	80252	1	0	0	0	0	0	0	0
950	RTA00000404F.h.22.1	18735	2	1	0	0	0	0	1	0 .
952	RTA00000410F.o.05.1	75262	1	0	0	0	0	0	0	0
953	RTA00000339R.1.14.1	19119	3	0	0	0	0	0	0	0
954	RTA00000403F.m.13.2	39077	2	0	0	0	0	0	0	0
957	RTA00000419F.g.22.1	64515	1	0	0	0	0	0	0	0
958	RTA00000404F.g.21.1	37947	2	0	0	0	0	0	0	0
960	RTA00000138A.n.4.1	21920	2	1	0	0	0	0	0	0
961	RTA00000410F.b.15.1	77100	l	0	0	0	0	0	0	0
963	RTA00000419F.j.23.1	74470	1	0	0	0	0	0	0	0
964	RTA00000411F.j.02.1	65310	1	0	0	0	0	0	0	0
965	RTA00000419F.p.24.1	63477	1	0	0	0	0	0	0	0
966	RTA00000404F.a.19.1	38624	2	0	0	0	0	0	0	0
973	RTA00000346F.e.13.1	74653	1	0	0	0	0	0	0	0
974	RTA00000419F.c.18.1	41394	1	1	0	0	0	0	0	0
978	RTA00000404F.e.22.1	11344	3	3	0	0	0	0	0	0
981	RTA00000125A.k.10.1	81644	1	0	0	0	0	0	0	0
982	RTA00000347F.c.06.1	18846	2	1	0	0	0	0	0	0
983	RTA00000411F.k.19.1	64200	1	0	0	0	0	0	0	0
984	RTA00000345F.i.09.1	27250	2	0	0	0	0	0	0	0
985	RTA00000423F.k.01.1	40426	2	0	0	0	0	0	0	0
986	RTA00000408F.d.06.1	78997	1	0	0	0	0	0	0	0

987 RTA00000128A.b.20.1 79761 1 0 0 0 0 0 0 0 0 0 0 0 0 0 9 9 9 9 8 RTA00000195AF.d.4.1 22766 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clone:	lib 15 clones		lib 17 clones		lib 19 clones	lib 20
989 RTA00000195AF.d.4.1 22766 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		987		79761	1	0	0	0	0	0	0	0
991 RTA00000403Fh.1.2.1 15205 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				22766	3	0	0	0	0	0	0	
995 RTA00000119A,j.22.1 80336 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 9 9 9    RTA00000126A,n.7.2 79557 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				15205	2	1	0	0	0	0	0	
995 RTA00000126A.n.7.2 79557 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0				80336	1	0	0	0	0	0	0	
997 RTA00000404F.j.08.1 39066 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				79557	1	0	0	1	0	0	0	
998 RTA00000410F.c.14.I 77809 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			RTA00000404F.j.08.1	39066	2	0	0	0	0	0		
999 RTA00000120A.g.23.1 81189 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1				77809	1	0	0	0	0	0		
1000 RTA00000195AF.d.20.1   37574   2		999	RTA00000120A.g.23.1	81189	1	0	0	0	0	0		
1002   RTA00000412F.j.17.1   64071   1   0   0   0   0   0   0   0   0		1000	RTA00000195AF.d.20.1	37574	2	0	0	0	0	0		
1004   RTA00000119A.j.10.1   79646   1   0   0   0   0   0   0   0   0   0		1002	RTA00000412F.j.17.1	64071	1	0	0	0	0	0		
1010 RTA00000419F.o.16.1 62867 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1		1004	RTA00000119A.j.10.1	79646	1	0	0	0	0	0		
1012 RTA0000040F.k.15.1 38549 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1010	RTA00000419F.o.16.1	62867	1	0	0	0	0	0		
1013 RTA00000406F.k.15.1 38549 2 0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1		1012	RTA00000411F.c.17.1	77664	1	0	0	0	0	0		
1014 RTA00000406F.a.02.1 37744 2 0 0 0 0 0 0 0 0 0 0 0 0 1016 RTA00000341F.b.06.1 17008 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1017 RTA00000409F.n.14.1 78190 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1019 RTA00000345F.j.08.1 16731 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1013	RTA00000406F.k.15.1	38549	2	0	0	0	0			
1016 RTA00000341F.b.06.1 17008 4 0 0 0 0 0 0 0 0 0 0 0 1 0 1 1 1 1 1 1		1014	RTA00000406F.a.02.1	37744	2	0	0	0	0	0		-
1017 RTA00000409F.n.14.1 78190 1 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1019 RTA00000345F.j.08.1 16731 3 1 0 0 0 0 0 0 0 0 0 0 0 1 1021 RTA00000419F.g.15.1 32519 1 1 0 0 0 0 0 0 0 0 0 0 0 0 1022 RTA00000423F.a.19.1 21396 1 2 0 0 0 0 0 0 0 0 0 0 0 1024 RTA00000422F.e.08.1 39020 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1025 RTA00000411F.d.15.1 74890 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1016	RTA00000341F.b.06.1	17008	4	0	0	0	0			
1019 RTA00000345F.j.08.1 16731 3 1 0 0 0 0 0 0 0 0 0 0 1021 RTA00000419F.g.15.1 32519 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1017	RTA00000409F.n.14.1	78190	1	0	0	0	0			
1021 RTA00000419F.g.15.1 32519 1 1 0 0 0 0 0 0 0 0 0 1 1022 RTA00000423F.a.19.1 21396 1 2 0 0 0 0 0 0 0 0 0 0 1024 RTA00000422F.e.08.1 39020 2 0 0 0 0 0 0 0 0 0 0 0 0 1025 RTA00000411F.d.15.1 74890 1 0 0 0 0 0 0 0 0 0 0 0 0 1027 RTA00000411F.l.15.1 66704 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			RTA00000345F.j.08.1	16731	3	1	0	0	0			
1022 RTA00000423F.a.19.1 21396 1 2 0 0 0 0 0 0 0 0 0 0 1 1024 RTA00000422F.e.08.1 39020 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1021	_	32519	1	1	0	0	0			
1024 RTA00000422F.e.08.1 39020 2 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1 0		1022	RTA00000423F.a.19.1	21396	1	2	0	0	0	0	0	
1025 RTA00000411F.d.15.1 74890 1 0 0 0 0 0 0 0 0 0 0 0 1 1 0 1027 RTA00000411F.l.15.1 66704 1 0 0 0 0 0 0 0 0 0 0 0 0 1 1029 RTA00000405F.e.08.1 37916 2 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				39020	2	0	0	0	0			_
1027 RTA00000411F.I.15.1 66704 1 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 0 1 1 0 0 0 0 0 1 1 0 0 0 0 0 1 1 0		1025		74890	1	0	0	0	0	0	0	-
1029       RTA00000405F.e.08.1       37916       2       0       0       0       1       0       0       0         1030       RTA00000353R.j.24.1       23089       3       0			RTA00000411F.I.15.1	66704	1	0	0	0	0		_	
1030 RTA00000353R.j.24.1 23089 3 0 0 0 0 0 0 0 0 0 0 0 1032 RTA00000418F.o.06.1 75930 1 0 0 0 0 0 0 0 0 0 0 0 0 1033 RTA00000404F.c.10.1 23534 2 1 0 0 0 0 0 0 0 0 0 0 1034 RTA00000418F.i.21.1 78728 1 0 0 0 0 0 0 0 0 0 0 0 1036 RTA00000411F.l.13.1 43114 1 1 0 0 0 0 0 0 0 0 0 1037 RTA00000407F.a.24.1 37560 2 0 0 0 0 0 0 0 0 0 0 1038 RTA00000346F.n.06.1 12439 4 0 0 0 0 0 0 0 0 0 0 1039 RTA00000412F.l.21.1 65183 1 0 0 0 0 0 0 0 0 0 0 1040 RTA00000413F.i.02.1 65857 1 0 0 0 0 0 0 0 0 0 0 1041 RTA00000404F.i.19.1 38698 2 0 0 0 0 0 0 0 0 0 0 1041 RTA00000403F.a.11.1 73109 1 0 0 0 0 0 0 0 0 0 0 1045 RTA00000403F.a.11.1 73109 1 0 0 0 0 0 0 0 0 0 0 1046 RTA00000413F.k.16.1 64759 1 0 0 0 0 0 0 0 0 0 0 1046 RTA00000403F.c.01.1 19236 2 0 0 0 0 0 0 0 0 0 0 0 1047 RTA00000405F.c.01.1 19236 2 0 0 0 0 0 0 0 0 0 0 0 1047 RTA00000405F.c.01.1 19236 2 0 0 0 0 0 0 0 0 0 0 0 0 1047 RTA00000405F.c.01.1 19236 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				37916	2	0	0	0	1		_	
1032 RTA00000418F.o.06.1 75930 1 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0 1			_	23089	3	0	0	0	0 (	0 (	0	0
1034 RTA00000418F.i.21.1 78728 1 0 0 0 0 0 0 0 0 0 0 1 1 0 1 1 1 1 1				75930	1	0	0	0 (	0 (	) (	_	
1034 RTA00000418F.i.21.1 78728 1 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0 1				23534	2	1	0	0 (	) (	) (	)	0
1037 RTA00000407F.a.24.1 37560 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				78728	1	0	0	0 (	) (	) (	)	0
1037 RTA00000407F.a.24.1 37560 2 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0 1 0				43114	1	1	0 (	0 (	) (	) (	_	
1038 RTA00000346F.n.06.1 12439 4 0 0 0 0 0 0 0 0 0 0 1 0 0 1039 RTA00000412F.l.21.1 65183 1 0 0 0 0 0 0 0 0 0 0 0 0 1040 RTA00000413F.i.02.1 65857 1 0 0 0 0 0 0 0 0 0 0 1041 RTA00000404F.i.19.1 38698 2 0 0 0 0 0 0 0 0 0 0 0 1043 RTA00000403F.a.11.1 73109 1 0 0 0 0 0 0 0 0 0 1045 RTA00000411F.k.16.1 64759 1 0 0 0 0 0 0 1 0 1046 RTA00000405F.c.01.1 19236 2 0 0 0 0 0 0 0 0 0 1047 RTA00000423F.i.18.1 14996 4 0 0 0 0 0 0 0 0 0 0 0 1050 RTA00000406F a 07.1 26607 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				37560	2	0	0 (	0 (	) (	) (		
1039 RTA00000412F.1.21.1 65183 1 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 0 1 0				12439	4 (	0	0 (	) (	) (	) (		
1040 RTA00000413F.i.02.1 65857 1 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 1 0				65183	1 (	0	0 (	) (	) (	) (		
1041 RTA00000404F.i.19.1 38698 2 0 0 0 0 0 0 0 0 0 1043 RTA00000403F.a.11.1 73109 1 0 0 0 0 0 0 0 0 0 0 0 1045 RTA00000411F.k.16.1 64759 1 0 0 0 0 0 1 0 1046 RTA00000405F.c.01.1 19236 2 0 0 0 0 0 0 0 0 0 0 1047 RTA00000423F.i.18.1 14996 4 0 0 0 0 0 0 0 0 0 0 0 1050 RTA00000406F a 07 1 26607 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				65857	1 (	)	0 (	) (	) (	) (		
1043 RTA00000403F.a.11.1 73109 1 0 0 0 0 0 0 0 0 0 0 1 0 1045 RTA00000411F.k.16.1 64759 1 0 0 0 0 0 1 0 1046 RTA00000405F.c.01.1 19236 2 0 0 0 0 0 0 0 0 0 1047 RTA00000423F.i.18.1 14996 4 0 0 0 0 0 0 0 0 0 0 0 1050 RTA00000406F.a.07.1 26607 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				38698	2 (	) +	0 (	) (	) (			
1045 RTA00000411F.k.16.1 64759 1 0 0 0 0 0 1 0 1046 RTA00000405F.c.01.1 19236 2 0 0 0 0 0 0 0 1047 RTA00000423F.i.18.1 14996 4 0 0 0 0 0 0 0 1050 RTA00000406F 2 07 1 26607 2 0 0 0 0 0				73109	1 (	) (	0 (	) (	0			
1046 RTA00000405F.c.01.1 19236 2 0 0 0 0 0 0 0 0 0 1047 RTA00000423F.i.18.1 14996 4 0 0 0 0 0 0 0 0 0 0 1050 RTA00000406F 3.07.1 26607 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				64759	1 (	) (	) (	) (	0	_		
1047 RTA00000423F.i.18.1 14996 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				19236	2 (	) (	0	) 0	0	0		
1050 RTA00000406F 2071 26607 2 0 0 0				14996	1 (	) (	) (	0			•	
•	1	050	RTA00000406F.a.07.1	26607 2	2 (	) (	) (	0	0		•	

SEQ ID NO:	Sequence Name	cluster	lib l clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
1051	RTA00000347F.d.06.1	39122	2	0	0	0	0	0	0	0
1052	RTA00000419F.b.18.1	67034	1	0	0	0	0	0	0	0
1053	RTA00000406F.h.07.1	38003	2	0	0	0	0	0	0	0
1054	RTA00000405F.l.15.1	19575	2	1	0	0	0	0	0	0
1055	RTA00000406F.g.17.1	37979	2	0	0	0	0	0	0	0
1058	RTA00000130A.h.22.1	80933	1	0	0	0	0	0	0	0
1061	RTA00000404F.d.13.1	39036	2	0	0	0	0	0	0	0
1064	RTA00000340F.n.01.1	39081	2	0	0	0	0	0	0	0
1065	RTA00000419F.d.06.1	65496	1	0	0	0	0	0	0	0
1066	RTA00000419F.n.09.1	66070	1	0	0	0	0	0	0	0
1067	RTA00000399F.i.08.1	38927	2	0	0	0	0	0	0	0
1069	RTA00000423F.g.13.1	38028	2	0	0	0	0	0	0	0
1072	RTA00000195AF.b.21.1	39055	2	0	0	0	0	0	0	0
1073	RTA00000403F.h.05.1	39096	2	0	0	0	0	0	0	0
1075	RTA00000422F.p.07.2	39024	2	0	0	l	0	0	0	0
1078	RTA00000421F.n.19.1	16409	3	1	0	0	0	0	0	0
1080	RTA00000345F.k.21.1	40204	2	0	0	0	0	0	0	0
1082	RTA00000405F.a.11.1	39124	2	0	0	0	0	0	0	0
1084	RTA00000413F.e.16.1	63836	1	0	0	0	0	0	0	0
1086	RTA00000404F.o.18.2	39110	2	0	0	0	0	0	0	0
1087	RTA00000409F.i.24.1	76967	1	0	0	0	0	0	0	0
1091	RTA00000340F.n.13.1	17055	4	0	0	0	0	0	0	0
1092	RTA00000340F.p.04.1	78533	1	0	0	0	0	0	0	0
1093	RTA00000411F.c.05.1	73368	1	0	0	0	0	0	0	0
1097	RTA00000404F.i.02.1	39015	2	0	0	0	0	0	0	0
1099	RTA00000403F.m.15.2	26901	2	0	0	0	0	0	0	0
1100	RTA00000412F.h.23.2	65118	1	0	0	0	0	0	0	0
1101	RTA00000418F.j.08.1	73382	1	0	0	0	0	0	0	0
1102	RTA00000125A.n.4.1	81984	1	0	0	0	0	0	0	0
1103	RTA00000412F.l.19.1	65825	1	0	0	0	0	0	0	0
1105	RTA00000129A.p.3.1	32644	1	1	0	0	0	0	0	0
1106	RTA00000340F.p.20.1	17008	4	0	0	0	0	0	0	0
1107	RTA00000411F.a.10.1	73073	1	0	0	0	0	0	0	0
1108	RTA00000409F.n.17.1	76725	1	0	0	0	0	0	0	0
1109	RTA00000404F.c.03.2	39198	2	0	0	0	0	0	0	0
1110	RTA00000420F.a.19.1	34192	1	1	0	0	0	0	0	0
1114	RTA00000420F.d.12.1	64095	1	0	0	0	0	0	0	0
1115	RTA00000409F.j.19.1	73792	1	0	0	0	0	0	0	0
1116	RTA00000422F.d.16.1	39133	2	0	0	0	0	0	0	0

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rc1/0599/01019

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
1117	RTA00000418F.m.16.1	74986	1	0	0	0	0	0	0	0
1118	RTA00000405F.c.11.1	39068	2	0	0	0	0	0	0	0
1119	RTA00000404F.k.22.1	39084	2	0	0	0	0	0	0	0
1120	RTA00000418F.k.07.1	75067	1	0	0	0	0	0	0	0
1121	RTA00000403F.c.10.1	75261	1	0	0	0	0	0	0	0
1124	RTA00000410F.m.05.1	74964	1	0	0	0	0	0	0	0
1125	RTA00000405F.i.20.1	38532	2	0	0	0	0	0	0	0
1127	RTA00000408F.p.24.1	74286	1	0	0	0	0	0	0	0
1128	RTA00000418F.k.18.1	75385	1	0	0	0	0	0	0	0
1129	RTA00000422F.m.04.1	38702	2	0	0	0	0	0	0	0
1133	RTA00000403F.a.07.1	73559	l	0	0	0	0	0	0	0
1135	RTA00000403F.b.19.1	22327	2	1	0	0	0	0	0	0
1136	RTA00000418F.m.23.1	77195	1	0	0	0	0	0	0	0
1138	RTA00000404F.i.18.1	21912	2	1	0	0	0	0	0	0
1139	RTA00000422F.i.14.1	39300	2	0	0	0	0	0	0	0
1140	RTA00000418F.m.14.1	75711	1	0	0	1	0	0	0	0
1141	RTA00000406F.o.12.1	37459	2	0	0	0	0	0	0	0
1143	RTA00000411F.a.07.1	74547	1	0	0	0	0	0	0	0
1144	RTA00000411F.c.02.1	72852	1	0	0	0	0	0	0	0
1146	RTA00000130A.h.16.1	80761	1	0	0	0	0	0	0	0
1147	RTA00000410F.p.23.1	73948	1	0	0	0	0	0	0	0
1148	RTA00000418F.m.24.1	77114	1	0	0	0	0	0	0	0
1150	RTA00000408F.j.19.2	73752	1	0	0	0	0	0	0	0
1152	RTA00000118A.d.17.1	81921	1	0	0	0	0	0		0
1153	RTA00000407F.b.04.1	63221	1	0	0	0	0	0	0	0
1154	RTA00000411F.e.07.1	65008	1	0	0	0	0	0	0	0
1156	RTA00000132A.c.11.1	87278	1	0	0	0	0	0	0	0
1157	RTA00000420F.e.16.1	63639	1	0	0	0	0	0		0
1159	RTA00000404F.b.11.1	39079	2	0	0	0	0	0		0
1160	RTA00000418F.k.17.1	75390	1	0	0	0	0	0	_	0
1161	RTA00000129A.k.12.1	79322	1	0	0	0	0	0	0	0
1162	RTA00000340R.m.07.1	78415	1	0	0	0	0	0	0	0
1163	RTA00000405F.d.14.1	35209	2	0	0	0	0	0	1	0
1164	RTA00000406F.f.11.1	38601	2	0	0	0	0	0	0	0
1165	RTA00000120A.h.5.1	80344	l	0	0	0	0 (	0 (	_	0
1167	RTA00000411F.g.06.1	66065	1	0	0	0	0 (	0 (	_	0
1168	RTA00000408F.d.16.1	76318	1	0	0	0			_	)
1171	RTA00000404F.c.19.1	39026	2	0	0 (	0 (			_	1
1173	RTA00000410F.a.01.1	73354	1 (	0	0 (	0 (	) (			)

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones			lib 19 clones	lib 20 clones
1174	RTA00000408F.h.08.1	74575	1	0	0	0	0	0	0	0
1175	RTA00000422F.b.16.1	17045	4	0	0	0	0	0	0	0
1176	RTA00000419F.f.10.1	66193	1	0	0	0	0	0	0	0
1177	RTA00000418F.l.04.1	74140	1	0	0	0	0	0	0	0
1178	RTA00000410F.a.16.1	73548	1	0	0	0	0	0	0	0
1179	RTA00000138A.e.13.1	79608	1	0	0	0	0	0	0	0
1180	RTA00000130A.b.5.1	79579	1	0	0	0	0	0	0	0
1181	RTA00000408F.j.15.2	74759	1	0	0	0	0	0	0	0
1182	RTA00000410F.m.20.1	74285	1	0	0	0	0	0	0	0
1185	RTA00000419F.e.04.1	62963	1	0	0	0	0	0	0	0
1187	RTA00000418F.g.05.1	73075	1	0	0	0	0	0	0	0
1188	RTA00000419F.n.02.1	65963	1	0	0	0	0	0	0	0
1191	RTA00000119A.m.15.1	80989	1	0	0	0	0	0	0	0
1194	RTA00000413F.g.23.1	40700	1	1	0	0	0	0	0	0
1195	RTA00000403F.a.18.1	75726	1	0	0	0	0	0	0	0
1196	RTA00000404F.m.20.2	39144	2	0	0	0	0	0	0	0
1199	RTA00000419F.h.04.1	65034	ì	0	0	0	0	0	0	0
1200	RTA00000408F.d.12.1	75782	1	0	0	0	0	0	0	0
1201	RTA00000133A.m.19.2	80167	1	0	0	0	0	0	0	0
1206	RTA00000126A.o.22.1	81752	1	0	0	0	0	0	0	0
1207	RTA00000419F.n.13.1	66026	1	0	0	0	0	0	0	0
1208	RTA00000130A.h.13.1	80790	1	0	0	0	0	0	0	0
1212	RTA00000411F.m.19.1	74924	1	0	0	0	0	0	0	0
1214	RTA00000419F.k.06.1	78493	1	0	0	0	0	0	0	0
1216	RTA00000412F.d.16.1	26829	1	0	0	0	0	0	0	0
1217	RTA00000119A.j.23.1	79835	1	0	0	0	0	0	0	0
1219	RTA00000195AF.c.12.1	37582	2	0	0	0	0	0	0	0
1223	RTA00000423F.c.19.1	40472	2	0	0	0	0	0	0	0
1224	RTA00000405F.g.24.1	39076	2	0	0	0	0	0	0	0
1226	RTA00000419F.c.11.1	65504	1	0	0	0	0	0	0	0
1227	RTA00000135A.f.14.2	79969	1	0	0	0	0	0	0	0
1228	RTA00000403F.a.05.1	18808	1	1	0	0	0	0	0	0
1229	RTA00000405F.e.17.1	38662	2	0	0	0	0	0	0	0
1230	RTA00000411F.d.05.1	75812	1	0	0	0	0	0	0	0
1232	RTA00000418F.d.03.1	76824	1	0	0	0	0	0	0	0
1233	RTA00000418F.h.08.1	76401	1	0	0	0	0	0	0	0
1234	RTA00000418F.m.10.1	79110	1	0	0	0	0	0	0	0
1235	RTA00000411F.i.15.1	31612	1	1	0	0	0	0	0	0
1236	RTA00000413F.i.23.1	63073	1	0	0	0	0	0	0	0

SE ID NO	:	cluster				5 lib 16 s clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
123	111.6.24.1	64781	1	0	0	0	0	0	0	0
123		38590	2	0	0	0	0	0	0	0
123		79735	1	0	0	0	0	0	0	0
124	11.02.1	77993	1	0	0	0	0	0	0	0
124	11.13.1	7542	8	0	0	2	1	0	1	0
124		80533	1	0	0	0	0	0	_	0
124	- 11111000004101.1.21.1	75157	1	0	0	0	0	_		0
124	8 RTA00000129A.d.1.2	80058	1	0	0	0	0	_	_	0
125	111111111111111111111111111111111111111	76720	1	0	0	0	0	_	_	0
1253		39074	2	0	0	0	_	_	_	0
1255		73117	1	0	0	0		_	_	0
1259	11000001151.0.05.1	64788	1	0	0	_	-	_	_	0
1260	RTA00000121A.o.3.1	81437	1	0	0	_	_	_	_	0
1262	1201.0.02.1	40259	2	0	0	_	_	_		)
1268		79866	1	0	0	_	_		_	
1270	RTA00000419F.I.03.1	79060	1	0	0				) (	)
1272	RTA00000118A.a.2.1	38067	2	0	0	_		_ `	) (	
1273	101.101.10.1	76365	1	0	0	_	0 (	-	•	
1275	1111000001001.0.20.1	38578	2	0	0	_	) (	•		
1276	111.0.10100000151	66591	1	0	0	_		_	_	
1277	RTA00000406F.c.18.1	14368	2	0	0	0 (	•		. •	
1278	RTA00000418F.j.09.1	76352	1	0	0	0 (	_	_	· ·	
1279	RTA00000419F.f.23.1	65002	1	0	0	0 (	•	_	·	
1281	RTA00000411F.a.05.1	76699	1	0	0	0 0	_	_	Ū	
1282	RTA00000419F.m.21.1	77947	1	0	0	0 0		_	Ū	
1283	RTA00000405F.n.16.1	21503	2	1	1	0 0		_	Ū	
1284	RTA00000422F.o.19.2	13084	3	2	0	0 0	•	·	-	
1285	RTA00000408F.n.02.2	76993	1	0	0	0 0	-	0	0	
1290	RTA00000119A.g.7.1	83580	1	0	0	0 0	0	0	0	
1291	RTA00000411F.i.02.1	66975	i	0	0 (	0 0	0	0	0	
1292	RTA00000408F.l.09.1	75487	]	0	0 (	0 (	0	0	0	
1293	RTA00000423F.g.04.1	23012 2	2	1	0 (		0	0	0	
1295	RTA00000418F.i.18.1	78024 1		0	0 (		0	0	0	
1296	RTA00000411F.h.15.1	65160 1		0	0 (	_	0	0	0	
1297	RTA00000410F.i.19.1	78988 1		0	0 0	_	0	0	0	
1298	RTA00000419F.k.24.1	75596 1		_	0 0		0	0	0	
1301	RTA00000409F.i.09.1	75279 1		_	) 0	_	0	0	0	
	RTA00000419F.h.02.1	63985 1	(	0 (	) 0	v	0	0		
1303	RTA00000413F.b.12.1	64932 1		0 (		-	0	0	0	
					·	•	J	U	0	

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
1304	RTA00000121A.h.18.1	16376	4	0	0	0	0	0	0	0
1305	RTA00000411F.n.20.1	75816	1	0	0	0	0	0	0	0
1307	RTA00000411F.n.12.1	73308	1	0	0	0	0	0	0	0
1308	RTA00000408F.j.12.2	18226	1	0	0	0	0	0	0	0
1309	RTA00000409F.i.03.1	75968	1	0	0	0	0	0	0	0
1312	RTA00000409F.j.05.1	74128	1	0	0	0	0	0	0	0
1313	RTA00000419F.m.04.1	74367	1	0	0	0	0	0	0	0
1314	RTA00000418F.k.03.1	78901	1	0	0	0	0	0	0	0
1315	RTA00000419F.d.16.1	64357	1	0	0	0	0	0	0	0
1316	RTA00000420F.e.10.1	65899	1	0	0	0	0	0	0	0
1319	RTA00000418F.k.08.1	18259	1	0	0	0	0	0	0	0
1322	RTA00000410F.c.02.1	75055	1	0	0	0	0	0	0	0
1324	RTA00000403F.h.18.1	39241	2	0	0	0	0	0	0	0
1325	RTA00000405F.n.13.1	23810	2	1	0	0	0	0	0	0
1326	RTA00000355R.e.14.1	16837	2	2	0	0	0	0	0	0
1327	RTA00000422F.l.03.1	39147	2	0	0	0	0	0	0	0
1329	RTA00000403F.o.14.1	38971	2	0	0	0	0	0	0	0
1333	RTA00000127A.f.11.1	81463	1	0	0	0	0	0	0	0
1335	RTA00000403F.o.07.1	39037	2	0	0	0	0	0	0	0
1336	RTA00000403F.d.19.1	39243	2	0	0	0	0	0	0	0
1338	RTA00000406F.i.17.1	37902	2	0	0	0	0	0	0	0
1339	RTA00000418F.d.22.1	75324	1	0	0	0	0	0	0	0
1340	RTA00000340R.o.12.1	53732	1	0	0	0	0	0	0	0
1341	RTA00000125A.g.24.1	80397	1	0	0	0	0	0	0	0
1342	RTA00000130A.o.21.1	80218	1	0	0	0	0	0	0	0
1343	RTA00000420F.a.23.1	42158	1	1	0	0	0	0	0	0
1344	RTA00000411F.m.18.1	75629	1	0	0	0	0	0	0	0
1345	RTA00000407F.b.22.1	37487	2	0	0	0	0	0	0	0
1346	RTA00000409F.a.16.1	73990	1	0	0	0	0	0	0	0
1348	RTA00000341F.k.12.1	62985	1	0	0	0	0	0	0	0
1349	RTA00000129A.c.18.2	37216	2	0	0	0	0	0	0	0
1350	RTA00000410F.d.10.1	77561	1	0	0	0	0	0	0	0
1351	RTA00000351R.i.03.1	6874	6	3	0	0	1	0	0	0
1352	RTA00000135A.1.1.2	39426	2	0	0	0	0	0	0	0
1353	RTA00000420F.b.18.1	66136	1	0	0	0	0	0	0	0
1356	RTA00000403F.o.13.1	39049	2	0	0	0	0	0	0	0
1357	RTA00000411F.f.06.1	64186	1	0	0	0	0	0	0	0
1359	RTA00000351R.c.13.1	11476	6	0	0	0	0	0	0	0
1362	RTA00000420F.d.16.1	64485	1	0	0	0	0	0	0	0

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2	lib 15	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
1363	RTA00000404F.i.12.1	39001	2	0	0	0	0	0	0	0
1364	RTA00000404F.o.10.2	16785	2	2	0	0	0	0	0	0
1365	RTA00000419F.d.07.1	21421	1	2	0	0	0	0	0	0
1366	RTA00000404F.p.02.2	39097	2	0	1	0	0	0	0	0
1367	RTA00000125A.k.14.1	79457	1	0	0	0	0	0	0	0
1368	RTA00000122A.j.22.1	81151	1	0	0	0	0	0	0	0
1369	RTA00000406F.i.13.1	37904	2	0	0	0	0	0	0	0
1370	RTA00000135A.b.23.1	35241	2	0	0	0	0		_	0
1373	RTA00000423F.1.04.1	14320	2	0	0	0			_	0
1374	RTA00000420F.b.04.1	63820	1	0	0		_		_	0
1376	RTA00000408F.i.18.2	74410	1	0	0			_	_	0
1378	RTA00000341F.j.05.1	36177	2	0	0			_		0
1379	RTA00000420F.a.16.1	63345	1	0					_	
1381	RTA00000410F.j.01.1	73399	1	0	_	_	_		_	0 0
1382	RTA00000408F.p.21.1	77930	1	0	_		_		_	
1383	RTA00000412F.d.19.1	75743	1	0			•		_	0 0
1384	RTA00000352R.c.04.1	71976	1	0				_	_	0
1385	RTA00000413F.f.19.1	65189	1	0				_	_	)
1386	RTA00000411F.e.03.1	73648	1	0			_	) (		)
1389	RTA00000418F.c.04.1	41587	1	1	0	0 (				)
1390	RTA00000418F.o.17.1	79069	1	0	0	) (		•		
1391	RTA00000418F.e.21.1	74773	1	0	0 (	) (		_	`	
1392	RTA00000419F.d.14.1	64945	1 (	0	0 (		_	_	_	
1396	RTA00000410F.j.20.1	73601	1 (	0	0 (					
	RTA00000119A.j.9.1	82060	I (	0 (	0 (	) (		_	_	
	RTA00000340F.i.13.1	79299	1 (	0 (	0 (	) (		_	·	
	RTA00000412F.g.03.1	64740	. (	) (	) (	) 0	0		_	
	RTA00000122A.g.17.1	32655	I 1	l (	) (	0	0			
	RTA00000419F.n.12.1	66086	(	) (	) (	0			_	
	RTA00000351R.p.14.1	13166 2	? 3	3 (	) 0	0		_	_	
	RTA00000403F.e.08.1	19126 3		) (	) 0	0		_	0	
	RTA00000124A.k.20.1	80913 1	C	) (	0	0	0		0	
	RTA00000121A.n.2.1	33585 1	1	C	0	0	0	_	0	
	RTA00000422F.m.24.1	39159 2	0	1	0		1	2	2	
	RTA00000408F.e.24.2	75002 1	0	0	0	0	0	0	0	
	RTA00000403F.b.12.1	78775 1	0	0	0	0	0	0	0	
	RTA00000404F.a.09.1	38985 2	0	0	0	0	0	0	0	
	RTA00000403F.o.19.1	78615 1	0	0	0	0	0	0	0	
1424 F	RTA00000410F.b.10.1	74504 1	0	0	0	0	0	0	0	

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
1426	RTA00000413F.h.12.1	66929	1	0	0	0	0	0	0	0
1427	RTA00000406F.k.14.1	38651	2	0	0	0	0	0	0	0
1429	RTA00000411F.f.17.1	65661	1	0	0	0	0	0	0	0
1430	RTA00000411F.k.10.1	64506	1	0	0	0	0	0	0	0
1431	RTA00000411F.g.21.1	64500	1	0	0	0	0	0	0	0
1432	RTA00000119A.h.24.1	82266	1	0	0	0	0	0	0	0
1434	RTA00000408F.m.22.2	72949	1	0	0	0	0	0	0	0
1437	RTA00000410F.i.17.1	78147	1	0	0	0	0	0	0	0
1440	RTA00000129A.a.13.2	79780	1	0	0	0	0	0	0	0
1441	RTA00000129A.k.21.1	82067	1	0	0	0	0	0	0	0
1442	RTA00000350R.g.10.1	9026	7	0	0	1	0	0	0	0
1443	RTA00000413F.d.23.1	66030	1	0	0	0	0	0	0	0
1447	RTA00000411F.d.10.1	76445	1	0	0	0	0	0	0	0
1448	RTA00000404F.b.19.1	39281	2	0	0	0	0	0	0	0
1449	RTA00000418F.c.07.1	73245	1	0	0	0	0	0	0	0
1450	RTA00000418F.j.15.1	74855	1	0	0	0	0	1	0	0
1453	RTA00000413F.b.16.1	65126	1	0	0	0	0	0	0	0
1455	RTA00000350R.m.14.1	39171	2	0	0	0	0 .	0	0	0
1456	RTA00000418F.I.11.1	77158	1	0	0	0	0	0	0	0
1457	RTA00000130A.d.5.1	82051	1	0	0	0	0	0	0	0
1458	RTA00000339F.n.05.1	39648	2	0	0	0	0	0	0	0
1460	RTA00000407F.a.23.1	23489	2	1	0	0	0	0	0	0
1462	RTA00000403F.h.11.1	39219	2	0	0	0	0	0	0	0
1463	RTA00000406F.j.13.1	38688	2	0	0	0	0	0	0	0
1464	RTA00000352R.p.09.1	16915	4	0	0	0	0	0	0	0
1465	RTA00000413F.g.24.1	65481	1	0	0	0	0	0	0	0
1469	RTA00000420F.a.08.1	19473	1	2	0	0	0	0	0	0
1472	RTA00000404F.i.22.1	39082	2	0	0	0	0	0	0	0
1473	RTA00000124A.k.23.1	81350	1	0	0	0	0	0	0	0
1474	RTA00000404F.e.11.1	38991	2	0	0	0	0	0	0	0
1475	RTA00000129A.d.2.4	80119	1	0	0	0	0	0	0	0
1478	RTA00000419F.o.15.1	32487	1	1	0	0	0	0	0	0
1479	RTA00000119A.m.17.1	79536	1	0	0	0	0	0	0	0
1480	RTA00000410F.b.07.1	78916	1	0	0	0	0	0	0	0
1481	RTA00000420F.b.19.1	36873	2	0	0	0	0	0	0	0
1483	RTA00000411F.b.21.1	10051	1	0	0	0	0	0	0	0
1485	RTA00000356R.c.16.1	16915	4	0	0	0	0	0	0	0
1487	RTA00000412F.h.11.1	63175	1	0	0	0	0	0	0	0
1490	RTA00000420F.a.11.1	66460	1	0	0	0	0	0	0	0

SEO ID NO	` '	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
149	1 RTA00000120A.c.7.1	80985	1	0	0	1	0	0	0	0
149	2 RTA00000404F.e.15.1	39101	2	0	0	0	0.	0	0	0
149		38676	2	0	0	0	0	0	1	0
149	4 RTA00000423F.h.20.1	38639	2	0	0	0	0	0	0	0
149	7 RTA00000410F.b.18.1	76701	1	0	0	0	0	0	0	0
149	9 RTA00000423F.g.15.1	35173	2	0	0	0	0	0	0	0
150	0 RTA00000413F.b.04.1	66427	1	0	0	0	0	0	0	0
150	3 RTA00000346F.f.11.1	38528	2	0	0	0	0	0	0	0
150	6 RTA00000422F.i.02.1	76436	l	0	0	0	0	0	0	0
150	7 RTA00000410F.a.08.1	73324	1	0	0	0	0	0	0	0
150	9 RTA00000419F.e.02.1	65010	1	0	0	0	0	0	0	0
151	1 RTA00000403F.g.13.1	38718	2	0	0	0	0	0	0	0
151	3 RTA00000407F.a.01.1	12501	3	1	0	0	0	0	0	0
151	6 RTA00000411F.f.14.1	62984	1	0	0	0	0	0	0	0
151	7 RTA00000411F.c.04.1	76858	1	0	0	0	0	0	0	0
151	8 RTA00000135A.m.18.1	19255	2	0	0	0	0	0	0	0
151	9 RTA00000413F.c.17.1	36831	2	0	0	0	0	0	0	0
152	1 RTA00000404F.j.01.1	26859	2	0	0	0	0	0	0	0
152	2 RTA00000138A.p.10.1	81625	1	0	0	0	0	0	0	0
152	6 RTA00000423F.h.07.1	37933	2	0	0	0	0	0	0	0
152	7 RTA00000413F.e.04.1	64176	1	0	0	0	0	0	0	0
152	RTA00000406F.h.03.1	38585	2	0	0	0	0		0	0
1529	P RTA00000403F.e.24.1	16432	2	2	0	0	0		_	0
153	RTA00000403F.i.11.1	23535	2	1	0	0	0			0
1532	2 RTA00000419F.g.02.1	62839	1	0	0	0	0	0	0	0
1533	RTA00000347F.e.05.1	39814	2	0	0	0	0	0	0	0
1534	RTA00000408F.l.16.1	73468	1	0	0	0	0	0		0
1536	5 RTA00000423F.f.09.1	64823	1	0	0	0	0	0		0
1537	7 RTA00000419F.k.03.1	40822	1	1	0	0	0	0	_	0
1538	RTA00000406F.b.02.1	38744	2	0	0	0	0	_		0
1539	RTA00000418F.o.14.1	33524	1	1	0	0	0	0		0
1541	RTA00000404F.b.09.1	39166	2	0	0	0	0			0
1547	RTA00000406F.k.11.1	38715	2	0	0	0				0
1549	RTA00000406F.c.06.1	37924	2	0	0	0				0
1550	RTA00000418F.n.07.1	76316	1	0	0	0	_			- 0
1551	RTA00000419F.n.15.1	63484	1	)	0	0	_		_	)
1552	RTA00000408F.n.06.2	76642	1	)	0		0 (			)
1553	RTA00000420F.c.04.1	65007	1	) (	0	_	0 (			)
1554	RTA00000411F.j.15.1	66871	1 (	) (	0		) (			)
								`	•	-

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones			lib 17 clones		lib 19 clones	lib 20 clones
1556	RTA00000128A.m.23.1	81441	1	0	0	0	0	0	0	0
1557	RTA00000406F.g.03.1	38690	2	0	0	0	0	0	0	0
1558	RTA00000405F.h.05.2	75706	1	0	0	0	0 -	0	0	0
1559	RTA00000129A.n.24.1	81409	1	0	0	0	0	0	0 .	0
1562	RTA00000418F.n.11.1	78977	1	0	0	0	0	0	0	0
1565	RTA00000120A.h.9.1	80736	1	0	0	0	0	0	0	0
1566	RTA00000413F.a.12.1	63403	1	0	0	0	0	0	0	0
1567	RTA00000412F.o.05.1	63575	1	0	0	0	0	0	0	0
1571	RTA00000354R.n.04.1	22049	3	0	0	0	0	0	0	0
1573	RTA00000406F.h.05.1	38542	2	0	0	0	0	0	0	0
1574	RTA00000410F.b.24.1	75104	1	0	0	0	0	0	0	0
1575	RTA00000423F.d.11.1	38950	2	0	0	0	0	0	0	0
1578	RTA00000119A.k.1.1	81282	1	0	0	0	0	0	0	0
1579	RTA00000420F.f.07.1	66312	1	0	0	0	0	0	0	0
1580	RTA00000404F.k.22.2	39084	2	0	0	0	0	0	0	0
1581	RTA00000422F.e.07.1	38964	2	0	0	0	0	0	0	0
1582	RTA00000410F.f.12.1	73883	1	0	0	0	0	0	0	0
1584	RTA00000411F.m.11.1	73196	1	0	0	0	0	0	0	0
1587	RTA00000403F.o.10.2	38964	2	0	0	0	0	0	0	0
1590	RTA00000413F.c.10.1	65600	1	0	0	0	0	0	0	0
1591	RTA00000411F.b.17.1	72893	1	0	0	0	0	0	0	0
1593	RTA00000408F.k.19.1	77593	1	0	0	0	0	0	0	0
1596	RTA00000119A.i.8.1	82593	1	0	0	0	0	0	0	0
1598	RTA00000418F.g.03.1	78737	1	0	0	0	0	0	0	0
1599	RTA00000411F.a.09.1	78629	1	0	0	0	0	0	0	0
1601	RTA00000419F.j.11.1	73183	1	0	0	0	0	0	0	0
1603	RTA00000404F.n.18.2	37169	2	0	0	0	0	0	0	0
1604	RTA00000122A.n.16.1	80553	1	0	0	0	0	0	0	0
1605	RTA00000420F.c.07.1	65555	1	0	0	0	0	0	0	0
1608	RTA00000408F.j.13.2	42275	1	1	0	0	0	0	0	0
1610	RTA00000423F.a.01.1	39103	2	0	0	0	0	0	0	0
1613	RTA00000341F.e.20.1	67422	1	0	0	0	0	0	0	0
1614	RTA00000419F.m.22.1	75600	1	0	0	0	0	0	0	0
1615	RTA00000419F.m.23.1	64263	1	0	0	0	0	0	0	0
1616	RTA00000419F.b.06.1	76728	1	0	0	0	0	0	0	0
1618	RTA00000406F.p.08.1	37573	2	0	0	0	0	0	0	2
1619	RTA00000129A.n.17.1	79811	1	0	0	0	0	0		0
1621	RTA00000407F.b.08.1	37513	2	0	0	0	0	0	0	0
1623	RTA00000406F.i.08.1	37946	2	0	0	0	0	0	0	0

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones		lib 19 clones	lib 20 clones
1624		26856	2	0	0	0	0	0	0	0
1625	RTA00000418F.n.24.1	73153	1	0	0	0	0	0	0	0
1627	RTA00000409F.I.20.1	74394	1	0	0	0	0	0	0	0
1628	RTA00000418F.l.06.1	73317	1	0	0	0	0	0	0	0
1629	RTA00000346F.o.22.1	7381	2	6	0	0	0	0	0	0
1630	RTA00000129A.k.22.1	79639	1	0	0	0	0	0	0	0
1632	RTA00000418F.m.22.1	74567	1	0	0	0	0	0	0	0
1633	RTA00000413F.c.12.1	65334	1	0	0	0	0	0	0	0
1635	RTA00000418F.g.20.1	74626	1	0	0	0	0	0	0	0
1636	RTA00000413F.d.15.1	64943	1	0	0	0	0	0	0	0
1639	RTA00000412F.c.10.1	76372	1	0	0	0	0	0	0	0
1640	RTA00000122A.j.17.1	62736	1	0	0	0	0	0	0	0
1645	RTA00000418F.j.19.1	78399	1	0	0	0	0	0	0	0
1646	RTA00000137A.p.12.1	80614	1	0	0	0	0	0	0	0
1648	RTA00000418F.p.10.1	75323	1	0	0	0	0	0	0	0
1649	RTA00000408F.k.12.1	77246	1	0	0	0	0	0	0	0
1650	RTA00000137A.j.11.4	79752	1	0	0	0	0	0	0	0
1652	RTA00000419F.n.24.1	65995	1	0	0	0	0		0	0
1653	RTA00000418F.1.03.1	79058	1	0	0	0	0		0	0 .
1655	RTA00000419F.m.13.1	79052	1	0	0	0	0		0	0
1656	RTA00000418F.j.14.1	32623	1	1	0	0	0		_	0
1657	RTA00000403F.a.10.1	73952	1	0	0	0	0	0	0	0
1658	RTA00000420F.a.21.1	66241	1	0	0	0	0	0	_	0
1659	RTA00000127A.e.6.1	5885	4	2	0	0	0	0		0
1660	RTA00000405F.g.21.2	38966	2	0	0	0	0	0	0	0
1661	RTA00000405F.g.21.1	38966	2	0	0	0	0	0	0	0
1662	RTA00000419F.m.06.1	75749	1	0	0	0	0	0	0	0
1663	RTA00000423F.g.03.1	38007	2	0	0	0	0	0	0	0
1665	RTA00000418F.f.03.1	78911	1	0	0	0	0	0 (	0	0
1668	RTA00000120A.c.20.1	43235	1	1	0	0	0	1 (	0	0
1669	RTA00000138A.m.15.1	41603	1	1	0	0	0 (	0 (		0
1670	RTA00000408F.f.14.2	73024	1	0	0	0 (	0 (	0 (	_	0
1671	RTA00000418F.p.20.1	78023	1 (	0	0	0 (	0 (	) (	_	0
1672	RTA00000423F.e.21.1	66961	] (	)	0	0 (	) (	) (	_	0
1673	RTA00000419F.j.22.1	73525	1 (	)	0	0 (	) (	) (		o
1674	RTA00000410F.d.18.1	75458	1 (	)	0 (	0 (		) (		)
1675	RTA00000403F.b.24.1	78838	1 (	) (	0	O (				)
	RTA00000410F.e.09.1	76093	1 (	) (	0 (	) (				
1680	RTA00000353R.h.10.1	39498	2 (	) (	0 (	) (	) (			

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones		lib 19 clones	lib 20 clones
1682	RTA00000411F.d.21.1	74794	1	0	0	0	0	0	0	0
1683	RTA00000340F.m.04.1	19406	2	1	0	0	0	0	0	0
1684	RTA00000411F.n.09.1	78962	1	0	0	0	0	0 -	0	0
1685	RTA00000127A.h.22.2	13155	2	3	0	0	0	0	0	0
1686	RTA00000420F.e.09.1	66325	1	0	0	0	0	0	0	0
1687	RTA00000405F.p.03.1	11346	3	3	0	0	0	0	0	0
1688	RTA00000419F.a.18.1	78484	1	0	0	0	0	0	0	0
1691	RTA00000121A.n.23.1	26981	2	0	0	0	0	0	0	0
1692	RTA00000121A.n.15.1	40849	1	1	0	0	0	0	0	0
1693	RTA00000403F.i.23.1	11364	4	2	0	0	0	0	0	0
1694	RTA00000405F.a.03.1	39065	2	0	0	0	0	0	0	0
1696	RTA00000419F.p.08.1	65560	1	0	0	0	0	0	0	0
1697	RTA00000126A.n.6.2	79917	1	0	0	0	0	0	0	0
1698	RTA00000413F.c.03.1	64527	1	0	0	1	0	0	0	0
1699	RTA00000422F.k.24.1	39118	2	0	0	0	0	0	0	0
1700	RTA00000412F.c.17.1	75620	1	0	0	0	0	0	0	0
1702	RTA00000347F.g.08.1	23121	3	0	0	0	0	0	0	0
1703	RTA00000419F.o.06.1	64643	1	0	0	0	0	0	0	0
1704	RTA00000340R.j.07.1	38954	2	0	0	0	0	0	0	0
1705	RTA00000423F.j.02.1	38617	2	0	0	0	0	0	0	0
1706	RTA00000419F.c.04.1	63749	1	0	0	0	0	0	0	0
1707	RTA00000411F.a.01.1	74524	1	0	0	0	0	0	0	0
1708	RTA00000406F.f.05.1	22961	2	1	0	0	0	0	1	0
1709	RTA00000410F.n.05.1	77830	1	0	0	0	0	0	0	0
1710	RTA00000404F.e.06.1	39315	2	0	0	0	0	0	0	0
1712	RTA00000411F.c.03.1	79280	1	0	0	0	0	0	0	0
1718	RTA00000405F.1.07.1	38636	2	0	0	0	0	0	0	0
1720	RTA00000411F.n.06.1	73886	1	0	0	0	0	0	0	0
1721	RTA00000422F.k.15.1	19253	2	0	0	0	0	0	0	0
1722	RTA00000406F.h.16.1	38618	2	0	0	0	0	0	0	0
1723	RTA00000419F.f.24.1	18717	1	1	0	0	0	0	0	0
1724	RTA00000411F.d.18.1	76063	1	0	0	0	0 (	0 (	) (	0
1727	RTA00000408F.d.15.1	78467	1	0	0	0	0 (	0 (	) (	0
1728	RTA00000339F.b.22.1	6867	7	3	0	0 (	0 (	0 (	) (	0
1730	RTA00000411F.n.02.1	78049	1	0	0	0 (	) (	0 (	) (	0
1731	RTA00000419F.b.17.1	63261	1	0	0	0 (	) (	) (	) (	0
1733	RTA00000130A.e.20.1	79502	1	0	0	0 (	) (	) (	) (	)
1735	RTA00000411F.i.13.1	66138	1	0	0 (	) (	) (	) (		)
1736	RTA00000420F.e.20.1	64762	1	0	0 (	) (	) (	) (	) (	)

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones		lib 17 clones		lib 19 clones	lib 20 clones
1737	RTA00000126A.p.23.2	80915	1	0	0	0	0	0	0	0
1739	RTA00000406F.g.08.1	37963	2	0	0	0	0	0	0	0
1740	RTA00000409F.a.08.1	74978	1	0	0	0	0	0	0	0
1741	RTA00000406F.d.24.1	37997	2	0	0	0	0	0	0	0
1744	RTA00000418F.i.12.1	78971	1	0	0	0	0	0	0	0
1745	RTA00000121A.h.19.1	80334	1	0	0	0	0	0	0	0
1746	RTA00000419F.b.10.1	78566	l	0	0	0	0	0	0	0
1747	RTA00000406F.m.10.1	38004	2	0	0	0	0	0	0	0
1748	RTA00000406F.o.05.1	37894	2	0	0	0	0	0	0	0
1749	RTA00000408F.b.04.2	39933	2	0	0	0	0	0	0	0
1750	RTA00000411F.k.04.1	65407	1	0	0	0	0	0	0	0
1752	RTA00000134A.I.9.1	81814	1	0	0	0	0	0	0	0
1754	RTA00000418F.k.04.1	75864	1	0	0	0	0	0	0	0
1757	RTA00000419F.p.18.1	63002	1	0	0	0	0	0	0	0
1759	RTA00000419F.a.24.1	79290	1	0	0	0	0	0	0	0
1761	RTA00000129A.e.14.1	80053	1	0	0	0	0	0	0	0
1762	RTA00000404F.a.01.1	19251	2	0	0	0	0	0	0	0
1765	RTA00000408F.n.16.2	73720	1	0	0	0	0	0	0	0
1769	RTA00000412F.1.14.1	62792	1	0	0	0	0	0	0	0
1770	RTA00000129A.b.6.2	39111	2	0	0	0	0	0	0	0
1771	RTA00000406F.n.12.1	37517	2	0	0	0	0	0	0	0
1772	RTA00000418F.e.03.1	73442	1	0	0	0	0	0	0	0
1774	RTA00000403F.g.03.1	23537	2	1	0	0	0	0	0	0
1775	RTA00000412F.p.06.1	65485	1	0	0	0	0	0	0	0
1776	RTA00000419F.b.21.1	65366	1	0	0	0	0	0	0	0
1779	RTA00000351R.j.16.1	64773	1	0	0	0	0	0	0	0
1781	RTA00000419F.f.18.1	64047	1	0	0	0	0	0	0	0
1782	RTA00000423F.i.16.1	38604	2	0	0	0	0	0	0	0
1784	RTA00000411F.f.04.1	64526	1	0	0	0	0	0	0	0
1785	RTA00000125A.c.17.1	80619	1	0	0	0	0	0	0	0
1786	RTA00000404F.g.08.1	38980	2	0	0	0	0	0	0	0
1787	RTA00000423F.c.13.1	39059	2	0	0	0	0	0	0	0
1790	RTA00000404F.k.15.1	18225	2	0	0	0	0	0	0	0
1792	RTA00000339F.I.12.1	7711	4	1	0	0	0	0	0	0
1793	RTA00000406F.b.01.1	39006	2	0	0	0	0	0	0	0
1794	RTA00000407F.c.08.1	37549	2	0	0	0	0 (	0		0
1796	RTA00000403F.b.05.1	74300	1	0	0	0	0 (	0 (	0	0
1800	RTA00000408F.j.05.2	73878	1	0	0	0	0 (	0 (		0
1802	RTA00000419F.c.14.1	65727	1	0	0	0	0 (	) (		0

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones		lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
1806	RTA00000346F.h.24.1	4379	9	2	0	0	0	0	0	0
1807	RTA00000420F.b.02.1	64013	1	0	0	0	0	0	0 .	0
1808	RTA00000413F.b.24.1	65117	1	0	0	0	0	. 0	0	0
1809	RTA00000412F.d.08.1	75328	1	0	0	0	0	0	0	0
1811	RTA00000419F.m.18.1	76014	1	0	0	0	0	0	0	0
1812	RTA00000419F.1.24.1	74628	1	0	0	0	0	0	0	0
1813	RTA00000408F.c.06.1	78619	1	0	0	0	0	0	0	0
1814	RTA00000405F.h.21.2	39072	2	0	0	0	0	0	0	0
1816	RTA00000405F.g.05.2	38987	2	0	0	0	0	0	0	0
1817	RTA00000411F.f.20.1	63501	1	0	0	0	0	0	0	0
1819	RTA00000420F.d.19.1	43146	1	1	0	0	0	0	0	0
1820	RTA00000195R.a.06.1	35265	2	0	1	0	0	0	0	0
1821	RTA00000123A.f.2.1	80379	1	0	0	0	0	0	0	0
1822	RTA00000411F.j.11.1	66154	1	0	0	0	0	0	0	0
1827	RTA00000419F.j.03.1	77578	1	0	0	0	0	0	0	0
1829	RTA00000423F.h.11.1	38977	2	0	0	0	0	0 .	0	0
1830	RTA00000413F.b.17.1	21704	1	2	0	0	0	0	0	0
1833	RTA00000423F.f.03.1	63852	1	0	0	0	0	0	0	0
1834	RTA00000419F.e.10.1	63225	1	0	0	0	0	0	0	0
1836	RTA00000403F.d.02.1	39224	2	0	0	0	0	0	0	0
1838	RTA00000418F.j.20.1	77101	1	0	0	0	0	0	0	0
1846	RTA00000356R.h.05.1	35052	2	0	1	0	0	0	0	0
1848	RTA00000340F.i.15.1	26815	1	0	0	0	0	0	0	0
1850	RTA00000345F.c.12.1	23824	2	1	0	0	0	0	0	0
1852	RTA00000412F.o.03.1	65039	1	0	0	0	0	0	0	0
1853	RTA00000409F.d.16.1	76090	1	0	0	0	0	0	0	0
1856	RTA00000408F.j.17.2	78935	1	0	0	0	0	0	0	0
1857	RTA00000126A.j.15.2	40425	2	0	0	0	0	0	0	0
1861	RTA00000410F.b.17.1	77458	1	0	0	0	0	0	0	0
1862	RTA00000419F.1.22.1	78444	1	0	0	0	0	0	0	0
1864	RTA00000422F.f.22.1	38703	2	0	0	0	0	0	0	0
1867	RTA00000418F.c.05.1	76475	1	0	0	0	0	0	0	0
1868	RTA00000418F.p.21.1	78068	1	0	0	0	0	0	0	0
1870	RTA00000340F.i.08.1	12005	2	1	0	0	0	0	0	0
1871	RTA00000410F.o.04.1	79018	1	0	0	0	0	0	0	0
1872	RTA00000411F.1.16.1	16122	1	3	0	0	0	0	0	0
1873	RTA00000411F.j.03.1	66263	1	0	0	0	0	0	0	0
1874	RTA00000126A.k.24.1	39428	2	0	0	0	0	0	0	0
1876	RTA00000120A.m.10.3	81376	]	0	0	0	0	0	0	0

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
1877	RTA00000419F.f.16.1	64679	1	0	0	0	0	0	0	0
1878	RTA00000408F.c.23.1	42261	1	1	0	0	0	0	0	0
1881	RTA00000136A.h.6.1	81620	1	0	0	0	0	0	0	0
1886	RTA00000418F.e.20.1	73741	1	0	0	0	0	0	0	0
1888	RTA00000405F.l.03.1	38580	2	0	0	0	0	0	0	0
1889	RTA00000418F.m.02.1	74550	1	0	0	0	0	0	0	0
1891	RTA00000406F.c.05.1	22077	3	0	1	0	0	0	0	0
1893	RTA00000411F.k.21.1	65349	1	0	0	0	0	0	0	0
1897	RTA00000418F.i.06.1	75151	1	0	0	0	0	0	0	0
1898	RTA00000423F.a.03.1	26796	2	0	0	0	0	0	0	0
1900	RTA00000423F.k.21.2	37499	2	0	0	0	0	0	0	0
1902	RTA00000404F.c.18.1	38982	2	0	0	0	0	0	0	0
1905	RTA00000411F.g.24.1	65233	1	0	0	0	0	0	0	0
1907	RTA00000405F.m.07.1	37733	2	0	0	0	0	0	0	0
1908	RTA00000411F.j.07.1	66963	1	0	0	0	0	0	0	0
1910	RTA00000353R.h.04.1	17123	4	0	0	0	0		0	0
1911	RTA00000408F.f.10.2	75309	1	0	0	0	0		0	0
1913	RTA00000405F.o.03.1	37575	2	0	0	0	0		0	0
1914	RTA00000413F.b.18.1	39873	2	0	0	0	0	0	0	0
1920	RTA00000408F.c.08.1	73473	1	0	0	0	0		0	0
1922	RTA00000410F.c.06.1	77784	1	0	0	0	1	0	0	0
1924	RTA00000405F.b.08.1	39182	2	0	0	0	0	0	_	0
1925	RTA00000409F.1.24.1	73174	1	0	0	0	0	0	_	0
1926	RTA00000406F.j.06.1	38952	2	0	0	0	0	0	0	0
1927	RTA00000423F.h.03.1	37903	2	0	0	0	0	0	•	0
1929	RTA00000121A.k.22.1	79523	1	0	0	0	0	0	0	0
1931	RTA00000411F.m.06.1	24195	2	l	0	0	0	0	0	0
1932	RTA00000126A.b.9.1	81279	1	0	0	0	0	0 (	0	0
1935	RTA00000404F.l.05.1	38671	2	0	0	0	0 (	0 (		0
1941	RTA00000419F.p.10.1	41448	1	1	0	0	0 (	0 (	_	0
1942	RTA00000120A.c.19.1	81016	1	0	0	0 (	0 (	0 (	_	o
1948	RTA00000411F.k.14.1	63987	1	0	0	0 (	0 (	) (		)
1949	RTA00000420F.e.05.1	63908	1	0	0	0 (	) (	) (	_	)
1952	RTA00000128A.j.10.1	80085	1 (	0	0 (	0 (	) (	) (		)
1953	RTA00000412F.f.10.2	65405	1 (	0 0	0 (	) (	) (	) (		)
1955	RTA00000422F.k.17.1	38955	2 (	0 (	C C	) (	) (			)
1957	RTA00000347F.h.10.1	22779	3 (	0 (	0 (	) (	) (		*	
1959	RTA00000419F.1.02.1	75736	1 (	) (	) (	) (		-		
1961	RTA00000418F.b.20.1	73560	1 (	) (	) (	) (		_		
				(24				•	`	•

SEQ ID NO:	Sequence Name	cluster	lib l clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
1964	RTA00000408F.n.05.2	77883	1	0	0	0	0	0	0	0
1965	RTA00000419F.o.09.1	66396	1	0	0	0	0	0	0	0
1970	RTA00000422F.o.08.2	26832	2	0	0	0	0	0	0	0
1973	RTA00000418F.m.18.1	76479	1	0	0	0	0	0	0	0
1974	RTA00000347F.e.20.1	39911	2	0	0	0	0	0	0	0
1975	RTA00000419F.e.23.1	65772	1	0	0	0	0	0	0	0
1982	RTA00000411F.g.05.1	64664	I	0	0	0	0	0	0	0
1983	RTA00000404F.h.10.1	37148	2	0	0	0	0	0	0	0
1984	RTA00000422F.n.14.1	26787	2	0	0	0	0	0	0	0
1986	RTA00000120A.m.13.3	80608	1	0	0	0	0	0	0	0
1987	RTA00000412F.i.03.1	65617	1	0	0	0	0	0	0	0
1988	RTA00000418F.I.02.1	39316	2	0	0	0	0	0	0	0
1990	RTA00000411F.j.04.1	66219	1	0	0	0	0	0	0	0
1995	RTA00000404F.a.18.1	36267	2	0	0	0	0	0	0	0
1996	RTA00000408F.l.14.1	12001	2	3	0	0	0	0	0	0
1997	RTA00000405F.d.10.1	39000	2	0	0	0	0	0	0	0
1999	RTA00000418F.h.23.1	75153	1	0	0	0	0	0	0	0
2001	RTA00000418F.j.11.1	73853	1	0	0	0	0	0	0	0
2002	RTA00000408F.o.13.1	74895	1	0	0	0	0	0	0	0
2003	RTA00000419F.o.07.1	14059	1	0	0	0	0	0	0	0
2004	RTA00000419F.n.17.1	63186	1	0	0	0	0	0	0	0
2005	RTA00000403F.f.15.1	22768	3	0	0	0	0	0	0	0
2006	RTA00000408F.d.03.1	22768	3	0	0	0	0	0	0	0
2008	RTA00000346F.f.02.1	62757	1	0	0	0	0	0	0	0
2010	RTA00000413F.i.21.1	64066	1	0	0	0	0	0	0	0
2012	RTA00000419F.h.21.1	64828	1	0	0	0	0	0	0	0
2021	RTA00000121A.a.2.1	81843	1	0	0	0	0	0	0	0
2022	RTA00000527F.g.13.1	36035	2	0	0	0	0	0	0	0
2025	RTA00000426F.h.11.1	75479	1	0	0	0	0	0	0	0
2030	RTA00000522F.b.22.1	75181	1	0	0	0	0	0	0	0
2033	RTA00000522F.a.23.1	38613	2	0	0	0	0	0	0	0
2035	RTA00000523F.b.02.1	65163	1	0	0	0	0	0	0	0
2036	RTA00000425F.j.14.1	73397	1	0	0	0	0	0	0	0
2039	RTA00000522F.e.16.1	75283	1	0	0	0	0	0	0	0
2042	RTA00000523F.h.17.1	65586	1	0	0	0	0	0	0	0
2044	RTA00000522F.p.07.1	76888	1	0	0	0	0	0	0	0
2045	RTA00000522F.n.08.1	76343	1	0	0	0	0	0	0	0
2046	RTA00000425F.c.06.1	78041	1	0	0	0	0	0	0	0
2047	RTA00000427F.b.23.1	64297	1	0	0	0	0	0	0	0

SEQ ID NO:	Sequence Name	cluster	lib I clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones		lib 19 clones	lib 20 clones
2048	RTA00000527F.p.02.1	36844	2	0	0	0	0	0	0	0
2049	RTA00000427F.d.08.1	63967	1	0	0	0	0	0	0	0
2051	RTA00000426F.m.07.1	63504	1	0	0	0	0	0	0	0
2052	RTA00000427F.c.10.1	65478	1	0	0	0	0	0	0	0
2055	RTA00000424F.m.15.1	73759	1	0	0	0	0	0	0	0
2056	RTA00000426F.f.11.1	63102	1	0	0	0	0	0	0	0
2058	RTA00000426F.f.20.1	65134	1	0	0	0	0	0	0	0
2063	RTA00000527F.i.19.2	38089	2	0	0	0	0	0	0	0
2068	RTA00000523F.e.18.1	62898	1	0	0	0	0	0	0	0
2069	RTA00000527F.k.21.1	36051	2	0	0	0	0	0	0	0
2072	RTA00000522F.n.02.1	74959	1	0	0	0	0	0	0	0
2075	RTA00000425F.f.19.1	32635	1	1	0	0	0	0	0	0
2076	RTA00000528F.e.23.1	19242	3	0	0	0	0	0	0	0
2077	RTA00000522F.n.16.1	26769	l	0	0	0	0	0	0	0
2078	RTA00000427F.c.20.1	26527	1	0	0	0	0	0	0	0
2079	RTA00000527F.k.06.1	12469	3	1	0	0	0	0	0	0
2081	RTA00000523F.i.06.1	66341	1	0	0	0	0	0	0	0
2082	RTA00000427F.f.21.1	36853	2	0	0	0	0	0	0	0
2083	RTA00000427F.j.19.1	41395	1	1	0	0	0	0	0	0
2084	RTA00000522F.b.01.1	75691	1	0	0	0	0	0	0	0
2085	RTA00000424F.i.24.1	79101	1	0	0	0	0	0	0	0
2086	RTA00000523F.c.01.1	65710	1	0	0	0	0	0	0	0
2087	RTA00000427F.b.15.1	66891	1	0	0	0	0	0	0	0
2090	RTA00000522F.j.15.2	76535	1	0	0	0	0	0	0	0
2093	RTA00000426F.f.19.1	66701	1	0	1	0	0	0	0	0
2096	RTA00000523F.i.22.1	64688	1	0	0	0	0	0	0	0
2098	RTA00000425F.i.17.1	43213	1	1	0	0	0	0	0	0
2101	RTA00000425F.p.12.1	73219	1	0	0	0	0	0	0	0
2102	RTA00000427F.j.07.1	64819	1	0	0	0	0	0	0	0
2104	RTA00000527F.i.05.2	37481	2	0	0	0	0	0	0	0
2107	RTA00000523F.k.01.1	41437	1	1	0	0	0	0	0	0
2108	RTA00000425F.j.11.1	76667	1	0	0	0	0	0		0
2109	RTA00000424F.b.22.4	72971	1	0	0	0	0	0		0
2111	RTA00000525F.a.03.1	36786	2	0	0	0	0			0
2112	RTA00000527F.i.21.2	37490	2	0	0	0	0			0
2113	RTA00000424F.a.24.4	73951	1	0	0	0	0			0
2114	RTA00000522F.k.14.1	74280	1	0						0
2115	RTA00000522F.n.05.1	73260	1	0						0
2116	RTA00000523F.c.18.1	66179	1	0	0	0				0

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones		lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
2117	RTA00000523F.b.13.1	66330	1	0	0	0	0	0	0	0
2119	RTA00000527F.p.16.1	23798	2	1	0	0	0	0	0	0
2120	RTA00000425F.c.20.1	73581	1	0	0	0	0	0	0	0
2121	RTA00000424F.i.21.1	73482	1	0	0	0	0	0	0	0
2122	RTA00000523F.j.19.1	65910	1	0	0	0	0	0	0	Ò
2124	RTA00000424F.b.22.1	72971	1	0	0	0	0	0	0	0
2125	RTA00000527F.b.18.1	37469	2	0	0	0	0	0	0	0
2129	RTA00000525F.e.16.1	36837	2	0	0	0	0	0	0	0
2131	RTA00000522F.d.08.1	74284	1	0	0	0	0	0	0	0
2134	RTA00000527F.g.07.1	37488	2	0	0	0	0	0	0	0
2136	RTA00000525F.b.05.1	21116	2	1	0	0	0	0	0	0
2137	RTA00000425F.n.05.1	73965	i	0	0	0	0	0	0	0
2138	RTA00000523F.d.18.1	64072	1	0	0	0	0	0	0	0
2139	RTA00000525F.a.02.1	37454	2	0	0	0	0	0	0	0
2141	RTA00000426F.h.09.1	78797	1	0	0	0	0	0	0	0
2144	RTA00000427F.g.05.1	63138	1	0	0	0	0	0	0	0
2145	RTA00000424F.m.12.1	77675	1	0	0	0	0	0	0	0
2151	RTA00000427F.h.12.1	36894	2	0	0	0	0	0	0	0
2152	RTA00000523F.c.15.1	36935	2	0	0	0	0	0	0	0
2153	RTA00000427F.k.17.1	64965	1	0	0	0	0	0	0	0
2155	RTA00000424F.c.14.3	76614	1	0	0	0	0	0	0	0
2156	RTA00000522F.k.10.2	77619	1	0	0	0	0	0	0	0
2157	RTA00000424F.m.22.1	72943	1	0	0	0	0	0	0	0
2158	RTA00000527F.h.17.1	37799	2	0	0	0	0	0	0	0
2159	RTA00000527F.c.22.1	37496	2	0	0	0	0	0	0	0
2160	RTA00000425F.k.22.1	78123	1	0	0	0	0	0	0	0
2161	RTA00000424F.m.14.1	77491	1	0	0	0	0	0	0	0
2162	RTA00000522F.k.19.1	32625	1	I	0	0	0	0	0	0
2163	RTA00000523F.i.18.1	64463	1	0	0	0	0	0	0	0
2164	RTA00000425F.j.22.1	73882	1	0	0	0	0	0	0	0
2165	RTA00000527F.g.23.1	37538	2	0	0	0	0	0	0	0
2166	RTA00000426F.m.24.1	63943	1	0	0	0	0	0	0	0
2168	RTA00000425F.d.21.1	78920	1	0	0	0	0	0	0	0
2170	RTA00000424F.d.04.3	76505	1	0	0	0	0	0	0	0
2171	RTA00000424F.d.04.1	76505	1	0	0	0	0	0	0	0
2172	RTA00000427F.c.12.1	66995	1	0	0	0	0	0	0	0
2174	RTA00000527F.1.13.1	36904	2	0	0	0	0	0	0	0
2175	RTA00000522F.h.13.1	40823	1	1	0	0	0	0	0	0
2176	RTA00000424F.1.19.1	75454	1	0	0	0	0	0	0	0

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones			lib 17 clones			lib 20 clones
2179	RTA00000427F.a.06.1	66550	1	0	0	0	0	0	0	0
2180	RTA00000525F.c.19.1	38159	2	0	0	0	0	0	0	0
2181	RTA00000523F.f.06.1	62871	1	0	0	0	0	0	0	0
2182	RTA00000424F.h.10.1	72925	1	0	0	0	0	0	0	0
2183	RTA00000522F.a.12.1	33515	1	1	0	0	0	0	0	0
2184	RTA00000522F.h.01.1	75010	1	0	0	0	0	0	0	0
2186	RTA00000425F.e.21.1	77203	1	0	0	0	0	0	0	0
2187	RTA00000523F.f.07.1	62799	I	0	0	0	0	0	0	0
2189	RTA00000424F.j.12.1	73827	1	0	0	0	0	0	0	0
2191	RTA00000523F.d.12.1	64888	1	0	0	0	0	0	0	0
2192	RTA00000523F.e.10.1	62878	1	0	0	0	0	0	0	0
2193	RTA00000425F.f.11.1	79275	1	0	0	0	0	0	0	0
2194	RTA00000426F.m.18.1	62974	1	0	0	0	0	0	0	0
2197	RTA00000522F.g.15.1	76536	1	0	0	0	0	0	0	0
2198	RTA00000522F.n.12.1	74117	1	0	0	0	0	0	0	0
2200	RTA00000424F.d.10.3	73110	1	0	0	0	0	0	0	0
2204	RTA00000527F.c.04.1	23090	3	0	0	0	0	0	0	0
2206	RTA00000527F.h.21.1	37630	2	0	0	0	0	0	0	0
2207	RTA00000425F.c.07.1	76042	1	0	0	0	0	0	0	0
2209	RTA00000525F.c.15.1	7692	2	0	0	0	0	0	0	0
2210	RTA00000424F.d.22.3	76189	1	0	0	0	0	0	0	0
2211	RTA00000523F.h.12.1	65745	1	0	0	0	0	0	0	0
2212	RTA00000522F.g.22.1	77504	1	0	0	0	0	0	0	0
2215	RTA00000522F.j.12.2	74341	1	0	0	0	0	0	0	0
2216	RTA00000523F.i.08.1	65099	1	0	0	0	0	0	0	0
2218	RTA00000425F.j.20.1	26760	1	0	0	0	0	0	0	0
2220	RTA00000427F.f.24.1	64572	1	0	0	0	0	0	0	0
2221	RTA00000527F.a.13.1	37740	2	0	0	0	0	0	0	0
2225	RTA00000424F.a.09.4	77833	1	0	0	0	0	0	0	0
2227	RTA00000525F.f.07.1	37500	2	0	0	0	0	0	0	0
2228	RTA00000424F.j.07.1	79211	1	0	0	0	0	0	0	0
2229	RTA00000424F.m.10.1	34251	1	1	0	0	0	0	0	0
2231	RTA00000522F.g.06.1	78221	1	0	0	0	0	0	0	0
2232	RTA00000424F.h.03.1	74447	I	0	0	0	0	0	0	0
2233	RTA00000424F.n.06.1	74737	1	0	0	0	0	0	0	0
2234	RTA00000427F.c.22.1	63990	1	0	0	0	0	0	_	0
2235	RTA00000424F.k.12.1	77666	1	0	0	0	0	0	0	0
2236	RTA00000425F.f.02.1	76982	1	0	0	0	0	0		0
2237	RTA00000427F.h.11.1	26494	1	0	0	0	0	0	0	0

2238 RTA00000425F.j.16.1 75631 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones		lib 19 clones	lib 20 clones
2241 RTA00000522F.o.18.1 76366 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		RTA00000425F.j.16.1	75631	1	0	0	0	0	0	0	0
2242 RTA0000042Fj.j.22.1 66367 1 0 0 0 0 0 0 0 0 0 0 0 2 244 RTA00000426F.p.10.1 65845 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2240	RTA00000427F.f.17.1	63803	1	0	0	0	0	0	0	0
2243 RTA00000426F.p.10.1 65845 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2241	RTA00000522F.o.18.1	76366	1	0	0	0	0	0	0	0
2244 RTA00000522F.m.02.1 76834 1 0 0 0 0 0 0 0 0 0 0 0 2 2 4 0 0 0 0 0 0	2242	RTA00000427F.j.22.1	66367	1	0	0	0	0	0	0	0
2247 RTA00000425F.e.15.1 75921 1 0 0 0 0 0 0 0 0 0 0 2 255 RTA00000424F.g.14.1 74879 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2243	RTA00000426F.p.10.1	65845	1	0	0	0	0	0	0	0
2250 RTA00000424F.n.13.1 74942 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2244	RTA00000522F.m.02.1	76834	1	0	0	0	0	0	0	0
2251 RTA00000424F.g.14.1 74879 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2247	RTA00000425F.e.15.1	75921	1	0	0	0	0	0	0	0
2252 RTA00000426F.e.17.1 64089 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2250	RTA00000424F.n.13.1	74942	1	0	0	0	0	0	0	0.
2256 RTA00000427F.g.19.1 64611 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2251	RTA00000424F.g.14.1	74879	1	0	0	0	0	0	0	0
2258         RTA00000522F.c.01.1         74938         1         0 </td <td>2252</td> <td>RTA00000426F.e.17.1</td> <td>64089</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td>	2252	RTA00000426F.e.17.1	64089	1	0	0	0	0	0	0	0
2259 RTA00000522F,g.17.1 76486 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2256	RTA00000427F.g.19.1	64611	1	0	0	0	0	0	0	0
2260 RTA00000523F,j.17.1 63610 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2258	RTA00000522F.c.01.1	74938	1	0	0	0	0	0	0	0
2261 RTA00000522F.n.14.1 73410 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0	2259	RTA00000522F.g.17.1	76486	1	0	0	0	0	0	0	0
2263 RTA00000523F.e.20.1 65164 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2260	RTA00000523F.j.17.1	63610	1	0	0	0	0	0	0	0
2264 RTA00000424F.c.15.3 73533 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2261	RTA00000522F.n.14.1	73410	1	0	0	0	0	0	1	0
2265 RTA00000426F.p.09.1 66665 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2263	RTA00000523F.e.20.1	65164	1	0	0	0	0	0	0	0
2266 RTA00000522F.p.09.1 75204 1 0 0 0 0 0 0 0 0 0 0 2 267 RTA00000426F.m.21.1 64915 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2264	RTA00000424F.c.15.3	73533	1	0	0	0	0	0	0	0
2267 RTA00000426F.m.21.1 64915 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2265	RTA00000426F.p.09.1	66665	1	0	0	0	0	0	0	0
2268 RTA00000425F.j.21.1 77373 I 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2266	RTA00000522F.p.09.1	75204	1	0	0	0	0	0	0	0
2270 RTA00000523F.h.21.1 41440 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2267	RTA00000426F.m.21.1	64915	1	0	0	0	0	0	0	0
2271 RTA00000427F.h.24.1 65193 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2268	RTA00000425F.j.21.1	77373	1	0	0	0	0	0	0	0
2272 RTA00000425F.f.24.1	2270	RTA00000523F.h.21.1	41440	1	1	0	0	0	0	0	0
2273 RTA00000425F.m.03.1 76045 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2271	RTA00000427F.h.24.1	65193	1	0	0	0	0	0	0	0
2274 RTA00000426F.m.08.1 63781 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2272	RTA00000425F.f.24.1	40841	1	1	0	0	0	0	0	0
2275 RTA00000523F.d.24.1 64799 1 0 0 0 0 0 0 0 0 0 0 0 2276 RTA00000523F.c.14.1 66015 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2273	RTA00000425F.m.03.1	76045	i	0	0	0	0	0	0	0
2276 RTA00000523F.c.14.1 66015 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2274	RTA00000426F.m.08.1	63781	1	0	0	0	0	0	0	0
2277 RTA00000523F.b.20.1 66492 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2275	RTA00000523F.d.24.1	64799	1	0	0	0	0	0	0	0
2278 RTA00000522F.h.07.1 75149 1 0 0 0 0 0 0 0 0 0 0 2279 RTA00000527F.g.10.1 37820 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2276	RTA00000523F.c.14.1	66015	1	0	0	0	0	0	0	0
2279 RTA00000527F.g.10.1 37820 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2277	RTA00000523F.b.20.1	66492	1	0	0	0	0	0	0	0
2282 RTA00000427F.i.22.1 63199 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2278	RTA00000522F.h.07.1	75149	1	0	0	0	0	0	0	0
2284 RTA00000527F.n.07.1 15939 2 2 0 0 0 0 0 0 0 0 2285 RTA00000425F.e.09.1 75550 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2279	RTA00000527F.g.10.1	37820	2	0	0	0	0	0	0	0
2285 RTA00000425F.e.09.1 75550 1 0 0 0 0 0 0 0 0 0 0 0 2286 RTA00000427F.h.02.1 63652 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2282	RTA00000427F.i.22.1	63199	1	0	0	0	0	0	0	0
2286       RTA00000427F.h.02.1       63652       1       0       0       0       0       0       0       0         2287       RTA00000426F.f.16.1       65613       1       0       0       0       0       0       0       0         2288       RTA00000425F.i.21.1       75305       1       0       0       0       0       0       0         2289       RTA00000427F.k.19.1       62851       1       0       0       0       0       0       0	2284	RTA00000527F.n.07.1	15939	2	2	0	0	0	0	0	0
2287 RTA00000426F.f.16.1 65613 I 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2285	RTA00000425F.e.09.1	75550	1	0	0	0	0	0	0	0
2288 RTA00000425F.i.21.1 75305 1 0 0 0 0 0 0 0 0 0 2289 RTA00000427F.k.19.1 62851 1 0 0 0 0 0 0 0	2286	RTA00000427F.h.02.1	63652	1	0	0	0	0	0	0	0
2289 RTA00000427F.k.19.1 62851 1 0 0 0 0 0 0	2287	RTA00000426F.f.16.1	65613	1	0	0	0	0	0	0	0
	2288	RTA00000425F.i.21.1	75305	1	0	0	0	0	0	0	0
2291 RTA00000426F.g.16.1 41446 1 1 0 0 0 0 0 0	2289	RTA00000427F.k.19.1	62851	1	0	0	0	0	0	0	0
	2291	RTA00000426F.g.16.1	41446	1	1	0	0	0	0	0	0

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones				lib 19 clones	lib 20 clones
2292		13016	4	0	0	1	1	0	0	0
2293	RTA00000426F.m.02.1	66237	1	0	0	0	0	0	0	0
2296		75801	1	0	0	0	0	0	0	0
2297	RTA00000427F.h.19.1	63047	1	0	0	0	0 .	0	0	0
2299	RTA00000522F.g.21.1	77310	1	0	0	0	0	0	0	0
2301	RTA00000522F.g.20.1	77688	1	0	0	0	0	0	0	0
2304	RTA00000425F.k.20.1	74048	1	0	0	0	0	0	0	0
2306	RTA00000522F.b.07.1	78634	1	0	0	0	0	0	0	0
2307	RTA00000426F.g.19.1	63672	1	0	0	0	0	0	0	0
2308	RTA00000525F.d.19.1	36860	2	0	0	0	0	0	0	0
2310	RTA00000427F.d.10.1	40685	1	1	0	0	0	0	0	0
2313	RTA00000424F.a.05.4	77976	1	0	0	0	0	0	0	0
2315	RTA00000424F.a.05.1	77976	1	0	0	0	0	0	0	0
2316	RTA00000522F.l.15.1	74691	1	0	0	0	0	0	0	0
2317	RTA00000425F.e.02.1	76143	1	0	0	0	0	0	0	0
2318	RTA00000525F.c.11.1	37895	2	0	0	0	0	0	0	0
2320	RTA00000522F.c.14.1	75449	1	0	0	0	0	0	0	0
2321	RTA00000424F.m.08.1	19402	1	2	0	0	0	0	0	0
2322	RTA00000527F.f.18.1	37577	2	0	0	0	0	0	_	0
2324	RTA00000522F.a.06.1	73662	1	0	0	0	0	0	0	0
2327	RTA00000522F.d.23.1	73868	1	0	0	0	0	0	0	0
2330	RTA00000523F.j.10.1	63384	1	0	0	0	0	0	_	0
2331	RTA00000527F.p.08.1	36013	2	0	0	0	0	0	0	0
2333	RTA00000426F.f.17.1	66334	1	0	0	0	0	0		0
2334	RTA00000523F.j.21.1	36925	2	0	0	0	0	0	0	0
2339	RTA00000523F.a.01.1	74923	1	0	0	0	0	0	0	0
2341	RTA00000427F.j.06.1	63676	1	0	0	0	0	0	0	0
2342	RTA00000424F.m.04.1	79017	1	0	0	0	0	0	0	0
2343	RTA00000523F.i.17.1	65779	1	0	0	0	0	0 (	0	0
2346	RTA00000525F.c.18.1	24208	2	1	0	0	0	0 (		0
2347	RTA00000527F.e.09.1	37521	2	0	0	0	0	0 (		0
2348	RTA00000424F.j.08.1	73972	1	0	0	0	0	0 (		0
2350	RTA00000527F.c.09.1	64859	1	0	0	0	0 (	0 (	_	0
2353	RTA00000523F.c.03.1	36913	2	0	0	0	0 (	) (		0
2354	RTA00000427F.k.21.1	62880	1	0	0	0	0 (	) (	_	)
2356	RTA00000427F.d.09.1	66486	1	0	0	0 (		) (		)
2357	RTA00000426F.n.17.1	66572	1	0	0			) (		)
2360	RTA00000426F.m.03.1	66480	1	0	0			) (		
2361	RTA00000424F.h.06.1	77552	l	0	0 (	0 (	) (			
									`	

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones			lib 17 clones		lib 19 clones	lib 20 clones
2362	RTA00000425F.d.06.1	77660	1	0	0	0	0	0	0	0
2363	RTA00000427F.e.12.1	62813	1	0	0	0	0	0	0	0
2366	RTA00000426F.n.23.1	18176	1	0	0	0	0	0	0	0
2367	RTA00000522F.m.19.1	41544	1	1	0	0	0	0	0	0
2368	RTA00000522F.a.05.1	32611	1	1	0	0	0	0	0	0
2369	RTA00000427F.i.09.1	65916	1	0	0	0	0	0	0	0
2370	RTA00000424F.j.09.1	74387	1	0	0	0	0	0	0	0
2371	RTA00000424F.n.11.1	73874	1	0	0	0	0	0	0	0
2373	RTA00000527F.e.13.1	37588	2	0	0	0	0	0	0	0
2375	RTA00000425F.j.19.1	77925	1	0	0	0	0	0	0	0
2376	RTA00000522F.g.12.1	78783	1	0	0	0	0	0	0	0
2377	RTA00000523F.a.07.1	75804	1	0	0	0	0	0	0	0
2378	RTA00000425F.e.19.1	73409	1	0	0	0	0	0	0	0
2379	RTA00000425F.n.19.1	78324	1	0	0	0	0	0	0	0
2384	RTA00000427F.k.07.1	63742	1	0	0	0	0	0	0	0
2387	RTA00000522F.a.17.1	79032	1	0	0	0	0	0	0	0
2388	RTA00000527F.I.19.1	36856	2	0	0	0	0	0	0	0
2389	RTA00000424F.i.11.1	41569	1	1	0	0	0	0	0	0
2391	RTA00000424F.d.19.3	73180	1	0	0	0	0	0	0	0
2392	RTA00000522F.j.09.2	78522	1	0	0	0	0	0	0	0
2393	RTA00000424F.m.24.1	77045	1	0	0	0	0	0	0	0
2394	RTA00000522F.j.19.2	76224	1	0	0	0	0	0	0	0
2398	RTA00000527F.j.12.2	37503	2	0	0	0	0	0	0	0
2399	RTA00000522F.g.11.1	75432	1	0	0	0	0	0	0	0
2400	RTA00000522F.k.02.2	77622	1	0	0	0	0	0	0	0
2401	RTA00000427F.e.13.1	66080	1	0	0 .	0	0	0	0	0
2402	RTA00000426F.f.18.1	63271	1	0	0	0	0	0	0	0
2403	RTA00000427F.a.12.1	63377	1	0	0	0	0	0	0	0
2404	RTA00000424F.b.23.4	77322	1	0	0 -	0	0	0	0	0
2408	RTA00000427F.f.02.1	36822	2	0	0	0	0	0	0	0
2410	RTA00000424F.i.15.1	78043	1	0	0	0	0	0	0	0
2412	RTA00000522F.m.03.1	79194	1	0	0	0	0	0	0	0
2413	RTA00000522F.a.20.1	74070	1	0	0	0	0	0	0	0
2414	RTA00000424F.b.15.4	74958	1	0	0	0	0	0	0	0
2415	RTA00000527F.g.14.1	37532	2	0	0	0	0	0	0	0
2416	RTA00000522F.d.06.1	74809	1	0	0	0	0	0	0	0
2418	RTA00000427F.e.10.1	64599	1	0	0	0	0	0	0	0
2419	RTA00000527F.c.16.1	22908	3	0	0	0	0	0	0	0
2421	RTA00000523F.f.17.1	63984	1	0	0	0	0	0	0	0

SEQ ID NO:	Sequence Name	cluster	lib 1 clones	lib 2 clones		lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
2423	RTA00000527F.p.24.1	36832	2	0	0	0	0	0	0	0
2424	RTA00000425F.n.17.1	78304	1	0	0	0	0	0	0	0
2426	RTA00000425F.e.07.1	75992	1	0	0	0	0	0	0	0
2428	RTA00000523F.h.08.1	62893	1	0	0	0	0	0	0	0
2429	RTA00000522F.o.10.1	78798	1	0	0	0	0	0	0	0
2430	RTA00000425F.l.10.1	26893	1	0	0	0	0	0	0	0
2431	RTA00000427F.f.16.1	64122	1	0	0	0	0	0	0	0
2434	RTA00000425F.i.10.1	78736	1	0	0	0	0	0	0	0
2435	RTA00000426F.m.12.1	63740	1	0	0	0	0	0	0	0
2436	RTA00000527F.g.12.1	37746	2	0	0	0	0	0	0	0
2439	RTA00000425F.i.18.1	42255	1	1	0	0	0	0	0	0
2441	RTA00000424F.j.13.1	74485	1	0	0	0	0	0	0	0
2445	RTA00000424F.k.10.1	73232	l	0	0	0	0	0	0	0
2446	RTA00000522F.i.07.2	78377	1	0	0	0	0	0	0	0
2448	RTA00000522F.b.08.1	26915	1	0	0	0	0	0	0	0
2449	RTA00000522F.I.08.1	78781	1	0	0	0	0	0	0	0
2450	RTA00000525F.a.14.1	37566	2	0	0	0	0	0	0	0
2451	RTA00000424F.g.08.1	74928	1	0	0	0	0	0	0	0
2452	RTA00000425F.1.09.1	75251	1	0	0	0	0	0	0	0
2453	RTA00000522F.o.20.1	74853	1	0	0	0	0	0	0	0
2454	RTA00000527F.j.04.2	11809	3	1	0	0	0	0	0	0
2456	RTA00000523F.c.13.1	40668	1	1	0	0	0	0	0	0
2457	RTA00000427F.i.21.1	65540	1	0	0	0	0	0	0	0
2459	RTA00000522F.h.02.1	74947	1	0	0	0	0	0	0	0
2460	RTA00000522F.g.10.1	74294	1	0	0	0	0	0	0	0
2464	RTA00000425F.k.16.1	75282	1	0	0	0	0	0	0	0
2465	RTA00000525F.b.09.1	23472	2	1	0	0	0	0	0	0
2466	RTA00000522F.j.08.2	76613	1	0	0	0	0	0	0	0
2468	RTA00000523F.f.19.1	34169	1	1	0	0	0	0	0	0
2469	RTA00000425F.j.18.1	75561	1	0	0	0	0	1	0	0
2470	RTA00000426F.m.04.1	36865	2	0	0	0	0	0	0	0
2471	RTA00000527F.g.21.1	36028	2	0	0	0	0	0	0	0
2473	RTA00000525F.a.22.1	36848	2	0	0	0	0	0	0	0
2474	RTA00000522F.p.22.1	73322	1	0	0	0	0	0	_	0
2475	RTA00000424F.d.12.2	74342	1	0	0	0	0	0	_	0
2476	RTA00000424F.g.24.1	79156	1	0	0	0	0	0		0
2477	RTA00000427F.a.10.1	65370	1	0	0	0	0	_	_	0
2478	RTA00000426F.h.20.1	23187	3	0	0	0	0	0	_	0
2479	RTA00000424F.d.12.3	74342	1	0	0	0	0	0		0

SEQ ID	Sequence Name	cluster	lib 1 clones	lib 2 clones	lib 15 clones	lib 16 clones	lib 17 clones	lib 18 clones	lib 19 clones	lib 20 clones
NO:										
2480	RTA00000425F.c.03.1	74643	1	0	0	0	0	0	0	0
2481	RTA00000523F.f.16.1	26522	1	0	0	0	0	0	0	0
2482	RTA00000427F.f.15.1	66734	1	0	0	0	0	0	0	0
2485	RTA00000522F.p.18.1	76376	1	0	0	0	0	0	0	0
2493	RTA00000522F.g.18.1	73226	1	0	0	0	0	0	0	0
2495	RTA00000522F.h.05.1	73358	1	0	0	0	0	0	0	0
2497	RTA00000425F.n.16.1	18265	1	0	0	0	0	0	0	0
2498	RTA00000527F.I.21.1	36439	2	0	0	0	0	0	0	0
2501	RTA00000424F.d.17.3	73958	1	0	0	0	0	0	0	0
2502	RTA00000523F.j.02.1	62853	1	0	0	0	0	0	0	0

Table 21. Clones Deposited on January 22, 1999

Library

cDNA Library Ref No. cDNA ES17 cDNA ES18 cDNA ES19 ATCC Accession No. ATCC No. ATCC No. ATCC No. Clone Names in M00001368A:D07 M00001594A:D06 M00003906A:F04 M00003917A:D02 M00001613D:H10 M00003908A:F12 M00001673A:A04 M00001596D:E10 M00003914A:G09 M00003868B:G11 M00001592C:G04 M00003915C:H04 M00003917C:D03 M00001599D:A09 M00003905D:B08 M00003791C:E09 M00001619B:A09 M00003908C:G09 M00003870A:C05 M00001593B:E11 M00003914B:A11 M00003922A:D02 M00001605A:E06 M00003916C:C05 M00001608A:D03 M00003861C:H02 M00003959A:A03 M00003931B:A11 M00001616C:A02 M00003905D:C08 M00001679D:B05 M00001617A:D06 M00003908D:D12 M00001679C:D05 M00001595C:E01 M00003901B:H04 M00001687A:G01 M00001616C:A11 M00004031A:E01 M00003945A:E09 M00001608C:E11 M00004029C:C12 M00003908A:H09 M00001610C:E06 M00003911A:F10 M00001649B:G12 M00001612B:D11 M00003914C:F09 M00003813D:H12 M00001618B:E05 M00003963D:B05 M00004087C:D03 M00001621C:C10 M00003986C:E09 M00004269B:C08 M00001647A:H08 M00004031A:F07 M00004348A:A02 M00001631D:B10 M00003907C:C02 M00001679C:D01 M00001608D:E09 M00003911B:F08 M00001490A:E11 M00001641B:C10 M00003914C:H05 M00001641D:E02 M00001387A:E10 M00003918C:C12 M00001397B:G03 M00001630D:H10 M00003914C:C02 M00001441D:E04 M00001585C:D10 M00003914A:E04 M00001352C:G09 M00001560A:H10 M00003903B:D03 M00001370D:A12 M00001573B:C06 M00003905A:F09 M00001387B:A06 M00001660C:D11 M00003867C:E11 M00001397C:A10 M00001641C:C05 M00003870B:B08 M00001536D:G02 M00001578B:B05 M00003879D:A08 M00003895C:A10 M00001587C:C10 M00003891D:B10 M00001464B:B03 M00001590B:C07 M00003901C:A08 M00004370A:G05 M00001554A:E04 M00003903C:C04 M00001490B:H11 M00001570C:G06 M00003905A:F10 M00001530B:D10 M00001576A:B09 M00003906C:D06 M00001579C:E09 M00001582A:H01 M00003907D:A12 M00001587A:H03 M00001582B:E12 M00003905C:G11 M00001457C:H12 M00001615B:F07 M00003914D:D10 M00001535C:E01 M00001571C:A04 M00003972A:G09 M00001561D:C05 M00001573D:D10 M00003975D:C06 M00001589A:C01 M00001576A:F11 M00003905C:B02 M00001664D:G07 M00001579C:G05 M00003907D:F11 M00001565A:H09 M00001582D:A02 M00003914A:G06 M00001381C:B08 M00001589B:E07 M00003914D:E03 M00001395C:F11 M00001575B:B02 M00003972C:F08 M00001429D:F11 M00001578C:G06 M00003976C:D06 M00001449A:F01 M00001591A:B08 M00003907C:C04 M00001391C:H02 M00001607A:F11 M00003905B:C06 M00001429D:H12 M00001579C:E06 M00004088C:A12 M00001450A:G11 M00001661C:F11 M00004103C:D04 M00001344B:F12 M00001650B:C10 M00004107A:D01

cDNA Library Ref No.		cDNA ES18	cDNA ES19
ATCC Accession No.	ATCC No.	ATCC No.	ATCC No.
	M00001391D:C06	M00001654C:E04	M00004110A:E04
	M00003971A:A06	M00001656B:A08	M00004062A:H06
	M00001346A:E04	M00001662C:B02	M00004075D:C10
	M00001455C:G07	M00001656B:D05	M00004081D:H09
	M00001402D:F02	M00001661C:F10	M00004089A:B08
v	M00001438D:C06	M00001663A:C11	M00004103D:F10
	M00001349B:G05	M00001669A:C10	M00004107B:B04
	M00001389C:A08	M00001651B:B12	M00004032C:B02
	M00001439B:A10	M00001653B:E06	M00004078C:F04
	M00001455B:A09	M00001659C:F02	M00004038B:H10
	M00001441B:D11	M00001661B:F03	M00004089A:E02
	M00001453A:B01	M00001663C:F10	M00004096B:F05
	M00001456D:E08	M00001669A:G12	M00004104C:H12
	M00001399A:C03	M00001674D:C10	M00004110D:A10
	M00004496C:H03	M00001651B:E06	M00004036D:F02
	M00004135D:G02	M00001651C:C05	M00004088C;E04
	M00004692A:E07	M00001657C:C07	M00004104D:A04
	M00004374D:E10	M00001662A:C12	M00004107D:E12
	M00004374B:E10	M00001663D:C06	M00004115D:D08
	M00004403B:E04	M00001590B:C05	M00003846A:D03
	M00004312B:1107 M00003976C:A10	M00001330B:G05	M00004072C:F08
	M00003970C:A10	M00001403C:G00	M000040728:108
	M00004043A:D02 M00004081C:H06	M00001635A:G07	M00003986D:D02
	M00004087C:1100 M00004050D:A06	M00001625B:C10	M00003900B:B02
	M00004050D:A00 M00001361B:C07	M00001626C:D12	M00003914A:B07
	M00001301B:C07	M00001634D:D02	M00003971B:B07
	M00004341B.G03	M00001642D:F02	M00003971B:B07
	M00001342B.E01	M00001647B:E04	M00003978C:A03
	M00004087A:G08	M00001647B:E04 M00001632B:E05	M00003983B:C08
		M00001632B.E03	M00004033D:D07
	M00004344B:H04	M00001639A.C11	M00004072D:H12
	M00004497A:H03		M00004077B:H11
	M00001338C:E10	M00001624A:G11 M00001626C:G08	M00004080A:F01
	M00001366D:E12		
	M00001390D:E03	M00001672D:D04	M00004037B:C04
	M00001413B:H09	M00001639A:H06	M00004073C:D04
	M00004271B:B06	M00001662C:A04	M00004081A:A08
	M00004151D:E03	M00001641B:B01	M00004085B:B05
	M00001660B:C04	M00001673C:A02	M00004090C:C07
	M00003802D:B11	M00001650A:A12	M00004086D:B09
	M00001579C:E08	M00001659D:D03	M00004088D:B03
	M00001557D:C08	M00001661B:B05	M00004090C:C10
	M00003779B:E12	M00001671D:E10	M00004102C:D09
	M00001638A:D10	M00001652D:A06	M00004105C:E09
	M00003794A:B03	M00001654C:D05	M00004035A:G10
	M00001616C:F07	M00001656A:B07	M00003906A:H07
	M00001679A:F01	M00001647B:C09	M00004083B:G03
	M00001604C:E09	M00001635A:C06	M00001675B:E02
	M00001653B:E09	M00001482D:A04	M00003793C:D09
	M00001585A:F07	M00001485C:B10	M00003762B:H09
	M00003811D:A12	M00001457D:A07	M00001694C:F12
	M00001653C:F12	M00001461A:E05	M00001678D:C11
	M00001679D:F06	M00001477A:G07	M00001677D:B07

cDNA Library Ref No.
ATCC Accession No.

cDNA ES17	cDNA ES18	cDNA ES19
ATCC No.	ATCC No.	ATCC No.
M00003751D:B02	M00001479D:H03	M00001677B:A02
M00003801A:B10	M00001482C:D02	M00001675B:H03
M00003844C:A08	M00001484D:G05	M00003808D:D04
M00001636C:C01	M00001459B:D03	M00003752B:C02
M00001669C:B01	M00001464B:C11	M00003732B:E02
M00003755A:A09	M00001511A:A05	M00003677D:B02
M00003798D:H08	M00001477B:C02	M00001677D:B02
M00001444C:D05	M00001471A:D04	M00001094C:G04
M00004040B:F10	M00001485C:H10	M00003789C:100
M00001355A:C12	M00001485D:E05	M00001675B:D02
M00001401A:H07	M00001487C:G03	M00001079B:D02
M00001393B:B09	M00001514A:B04	M00003730C:1103
M00001409D:F11	M00001530C:G10	M00001677B:H06
M00001387B:H07	M00001534A:G06	M00001677B:F100
M00001394C:C11	M00001539A:C12	M00001675B:C01
M00001344A:H07	M00001547A:F11	M00001073B:C01
M00001490C:D07	M00001550D:A04	M00003837B:P07
M00001352C:F06	M00001460A:F07	M00003812B:B07
M00001476D:G03	M00001472C:A01	M00001034B.B08 M00001677B:E06
M00001399C:D09	M00001481B:A07	M00004077B.E00
M00001347C:G08	M00001456D:F05	M00004037A.E04 M00003870A:H01
M00001453D:G12	M00001456D:G11	M00003870A:H01
M00001382A:F04	M00001477D:F10	M00003842C.D11
M00001392D:H04	M00001481A:G06	M00003828B:F09
M00001429C:G12	M00001464A:B03	M00003851A:C10
M00001454A:C11	M00001469A:G11	M00003831A.C10
M00001517B:G08	M00001478B:D07	M00003847C:E04
M00001535A:D02	M00001473A;C11	M00003837C:G08
M00001352A:E12	M00001457A:G03	M00003028B:207
M00001381B:F06	M00001669B:G02	M00003772C:B12
M00004117A:D11	M00001479D:G06	M00001678B:B12
M00004217C:D03	M00001473D:B11	M00001678D:G03
M00004270A:F11	M00001475A:A12	M00001675C:F01
M00003996A:A06	M00001460A:G07	M00003809A:H04
M00004056B:D09	M00001464A:D03	M00003007A:1104
M00004142A:B12	M00001473D:G01	M00003771D:003
M00001396D:B03	M00001476D:C05	M00001677B:B06
M00001370D:E12	M00001484A:A10	M00003794A:E12
M00001390C:C11	M00001457C:F02	M00003771B:E05
M00003989A:H11	M00001459B:A12	M00003771B:203
M00001426A:A09	M00001464A:E07	M00003805B:C04
M00004498D:D05	M00001467A:B03	M00001680B:E10
M00001391B:G12	M00001514A:B08	M00001630B:E10
M00001391D:D10	M00001464A:B07	M00007079B:1107
M00001376B:A02	M00001579A:C03	M00003904D:B12
M00001405B:D07	M00001517A:G08	M00003858D:G06
M00001368A:A03	M00001530B:G09	M00003830B:G00 M00003870B:F04
M00001392D:B11	M00001538A:F12	M00003870B:F04
M00003900D:B10	M00001530A:112	M00003871C:B05
M00001494B:C01	M00001547A:F06	M00003873A:C04 M00003901B:A09
M00001352C:A05	M0000154771:100	M00003901B:A09
M00001408B:G06	M00001567B:G11	M00003901C:D03
	636	000.J704C.D00
	VJU	

cDNA Library Ref No. cDNA ES17 ATCC Accession No. ATCC No.

ATCC No. M00004252C:E03 M00003901C:A03 M00004071D:A10 M00001377B:H01 M00003939A:A02 M00004250D:D10 M00004290A:B03 M00003911D:B04 M00004128B:G01 M00004142A:D08 M00003977A:E04 M00004236C:D10 M00004388B:A08 M00004409B:A11 M00003965A:B11 M00003988A:E10 M00004138A:H09 M00003933C:D06 M00004193C:G11 M00004039C:C01 M00003924B:D04 M00004375C:D01

cDNA ES18 ATCC No. M00001572A:A10 M00001575B:G01 M00001487D:C11 M00001577B:A03 M00001539D:E10 M00001587A:F05 M00001560A:F03 M00001569B:G11 M00001573A:A06 M00001575D:A10 M00001583A:D01 M00001587A:F08 M00001590B:B02 M00001553A:E07 M00001560A:H06 M00001589C:A11 M00001538A:C08 M00001531A:H03 M00001548A:G01 M00001531A:H07 M00001542A:E04 M00001487A:F10 M00001503C:G05 M00001511A:G08 M00001539A:H12 M00001542A:F06 M00001549A:F01 M00001514A:A12 M00001516A:D05 M00001546C:C07 M00001549A:H11 M00001538A:D03 M00001544A:C09 M00001546B:F12 M00001550A:D09 M00001487B:F02 M00001513A:G07 M00001530A:F12 M00001538A:D12

M00001587A:G06

M00001551A:D04 M00001485B:C03

cDNA ES19 ATCC No. M00003901C:F09 M00003904D:B10 M00003850D:H11 M00003902B:D06 M00003879A:C01 M00003877D:G05 M00003881D:C12 M00003903A:H09 M00003905A:A06 M00003875D:D09 M00003879B:A06 M00003823D:G05 M00003763A:C01 M00003903B:C02 M00003905A:E07 M00003867A:D12 M00003857C:C09 M00003829C:D10 M00003839D:E02 M00003841C:F03 M00003903D:C06 M00003852D:E08 M00003845D:A09 M00003824A:G10 M00003841C:F06 M00003848A:C09 M00003857C:F11 M00003816C:C01 M00003843A:E08 M00003850A:F06 M00003813B:A11 M00003855C:F10 M00003850D:B05 M00003841D:F06 M00003858B:G05 M00003854D:A12 M00003857C:G01 M00003816C:E09 M00003813A:G04 M00003850D:A05

Table 22. Clones Deposited on January 22, 1999

cDNA Ref No.; ATCC Accession No. Clone Names in Library

	cDNA Ref ES20	cDNA Ref No. ES27	cDNA Ref ES28
).	ATCC No.	ATCC No.	ATCC No.
	M00004891D:A07	M00001623B:G07	M00001550D:H02
	M00004118B:C11	M00001619D:G05	M00001549C:D02
	M00004105A:B10	M00001616C:C09	M00001549A:A09
	M00004099A:F11	M00001615C:F03	M00001548A:B11
	M00004037C:D07	M00001614D:D09	M00001546C:G10
	M00004033D:C05	M00001608B:A03	M00001544C:C06
	M00003983D:A09	M00001607D:F07	M00003820B:C05
	M00004029B:H08	M00001623D:C10	M00001543A:H12
	M00004927A:A02	M00001599B:E09	M00001540C:B10
	M00003983C:F10	M00001632C:C09	M00001552B:G05
	M00003980B:C06	M00001605C:D12	M00001543C:F01
	M00004033D:B07	M00001625D:C07	M00001552D:G08
	M00004034C:E08	M00001629B:E06	M00001554B:B07
	M00005100B:H07	M00001594A:B12	M00001555A:B01
	M00005136A:D10	M00001632C:A02	M00001557A:F01
	M00005173D:H02	M00001567C:H12	M00001558A:E11
	M00004891D:C11	M00001635C:A03	M00001561C:E11
	M00004101A:F07	M00001636C:H09	M00001571D:B11
	M00003982B:B06	M00001638A:E07	M00001563B:D11
	M00004108C:E01	M00001639A:F10	M00001569C:B06
	M00005136D:B07	M00001656C:G08	M00001539B:H06
	M00004118D:A11	M00001632A:F12	M00001571B:E03
	M00005102C:C01	M00001557A:D02	M00001561D:C11
]	M00005177C:A01	M00001529B:C04	M00001487C:D06
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1	M00005174D:B02	M00001535D:C01	M00003772D:E10
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I	M00003984A:B06	M00001540D:D02	M00001455D:F09
ľ	M00003851C:D07	M00001541C:B07	M00001457C:C11
Ì	M00003959C:G06	M00001546B:B02	M00001459B:C09
	M00005100B:G11	M00001575B:C09	M00001460A:E01
ľ	M00005213C:G01	M00001554B:C07	M00001460C:H02
	M00003982B:H07	M00001578D:C04	M00001456A:H02
	M00004029C:B03	M00001557C:H07	M00001477B:F04
	M00004033D:G06	M00001558B:D08	M00003845D:B04
	M00004091B:H09	M00001560D:A03	M00001488A:E01
N	И00003959D:A04	M00001561C:F06	M00001492D:A11
	A00004030D:B06	M00001564D:C09	M00001496C:G10
N	/100004034C:C06	M00003748B:F02	M00001499A:A05
N	/100004030C:D12	M00001570D:A03	M00001500A:B02
	лооооз982C:H10	M00001660C:B12	M00001500D:E10
	400003971C:F09	M00001577B:H02	M00001500D:E10
	100004031B:A06	M00001548A:A08	M00001515B:A03
	100003966B:D02	M00003868B:D12	M00001528C:H04
	100004028B:G08	M00001718D:F07	M00001531B:E09
	100004031C:H10	M00003829C:A11	M00001351B:E09
M	100004076D:B09	M00003832B:E01	M00003755A:B03

D) ( D C) (	D	DUAD CN FCCC	-DNIA D. CECOO
cDNA Ref No.;	cDNA Ref ES20	cDNA Ref No. ES27	cDNA Ref ES28 ATCC No.
ATCC Accession No.	ATCC No. M00004092D:B11	ATCC No. M00003842B:D09	M00001653B:G07
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		M00003847E:E09	M00001656B:A07
	M00004097B:D03		
	M00003986D:G07	M00003853D:G08	M00001664C:H10
	M00004033B:C02	M00003828A:E04	M00001680B:C01
	M00004037B:A04	M00003867C:H09	M00001681A:F03
	M00004092C:B12	M00003822A:F02	M00001684B:G03
	M00005140D:G09	M00003868C:H10	M00001771A:A07
	M00004897D:G05	M00003871A:A05	M00003774C:D02
	M00004960B:D12	M00003879C:G10	M00003754D:D02
	M00005134C:G04	M00003880C:F10	M00001640B:F03
	M00005139A:F01	M00003881D:D06	M00003763B:H01
	M00005176A:C12	M00003884D:G07	M00003812C:A05
	M00005178A:A07	M00003887A:A06	M00003803C:D09
	M00005212A:A02	M00003889A:D10	M00003801B:B10
	M00005229D:H07	M00003889D:B09	M00003798D:E03
	M00004115C:H04	M00003858D:F12	M00003773B:G01
	M00004687A:C03	M00003774B:B08	M00003771A:G10
	M00004900C:E11	M00001680D:D02	M00001452A:E07
	M00004695B:E04	M00001528A:F09	M00004029B:F11
	M00005134D:A06	M00003748A:B07	M00003751B:A05
	M00004103B:B07	M00001655A:F06	M00001609B:A11
	M00005177A:B06	M00003750A:D01	M00001573D:F10
	M00005178A:A08	M00003761D:E02	M00001579C:B11
	M00004104D:B05	M00003763D:E10	M00001579C:H10
	M00004117B:G01	M00003768A:E02	M00001579D:G07
	M00004900D:B10	M00003829B:G03	M00001583B:E10
	M00005134D:H03	M00003772A:D07	M00001586D:E02
	M00005173C:A02	M00001661B:C08	M00001587D:A10
	M00005177A:H09	M00003778A:D08	M00001589A:D12
	M00005178B:H01	M00003799A:D09	M00001590C:H08
	M00005216C:B09	M00003800A:C09	M00001651B:A11
	M00003826B:E11	M00003804A:H04	M00001597A:E12
	M00001596A:G06	M00003806D:G05	M00001649C:B10
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	M00005137A:E01	M00003811A:E03	M00001615C:D02
	M00004119A:A06	M00003815D:H09	M00001621D:D03
	M00004891D:E07	M00003818B:G12	M00001623D:G03
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	M00004235A:A12	M00001386A:C02	M00004101C:G08

cDNA Ref No.: cDNA Ref ES20 cDNA Ref No. ES27 cDNA Ref ES28 ATCC Accession No. ATCC No. ATCC No. ATCC No. M00005134B:E01 M00001372C:F07 M00004102A:H02 M00004115C:G03 M00001389D:G11 M00004108A:A09 M00005175B:H04 M00001371D:G01 M00004111D:D11 M00005214B:D11 M00001392C:D10 M00004115D:C08 M00004102D:B05 M00001392D:H06 M00004118D:E08 M00004115A:B12 M00001397B:B09 M00004121C:F06 M00004119D:H06 M00001398A:G03 M00004131B:H09 M00004897D:F03 M00001400A:F06 M00004141D:A09 M00004960B:A09 M00001410B:G05 M00004090A:F09 M00005134C:E11 M00001413A:F02 M00004146A:C08 M00005138B:D12 M00001415B:E09 M00004078B:A11 M00005176A:A05 M00001425A:C11 M00004176B:E08 M00005214C:A09 M00001386A:D11 M00004188C:A09 M00004102C:D01 M00001354C:B06 M00004233C:H09 M00004960B:A08 M00001339D:G02 M00004241D:F11 M00001476D:A09 M00001660A:C12 M00004246C:A09 M00001572A:B06 M00001528A:A01 M00004247C:C12 M00005217D:F12 M00001343D:C04 M00004248B:E08 M00005233A:G08 M00001347B:E01 M00004257C:H06 M00005236B:F10 M00001348A:D04 M00004260D:C12 M00005259B:C01 M00001349C:C05 M00004295B:D02 M00005254D:B08 M00001350A:D06 M00004040D:F01 M00005259C:B05 M00001352D:C05 M00004142D:E10 M00001575A:D06 M00001380C:E05 M00003853D:D03 M00005259D:H08 M00001354B:B10 M00003860D:H07 M00003813C:D08 M00001380C:F02 M00003878C:E04 M00001530D:E06 M00001354C:C10 M00003879A:G05 M00004891B:B12 M00001355B:G11 M00003880B:C08 M00001596B:C11 M00001356D:F06 M00003881A:D09 M00004300C:H09 M00001360D:E11 M00003881C:G09 M00001486D:D12 M00001361C:H11 M00003901B:A05 M00001585D:F03 M00001362C:A10 M00003904D:D10 M00001596B:D09 M00001363C:H02 M00003905C:G10 M00001570D:E06 M00001366D:G02 M00003906B:F12 M00001582C:E01 M00001369A:H12 M00003909A:H04 M00001586C:E06 M00001352D:D02 M00004091B:D11 M00001593B:D10 M00001485D:B10 M00003963A:E03 M00001595C:H11 M00001457B:E03 M00004353C:H07 M00001596B:H05 M00001457C:C12 M00003919A:A10 M00001576A:C11 M00001458C:E01 M00003938A:B04 M00001596C:F09 M00001462B:A10 M00003939C:F04 M00001567A:H05 M00001464D:F06 M00003946D:C11 M00001585D:D11 M00001467D:H05 M00003979A:F03 M00004688A:A02 M00001468B:H06 M00003985C:F01 M00004927A:E06 M00001505C:H01 M00003997B:G07 M00005229D:H09 M00001470A:H01 M00003860D:A01 M00004117B:A12 M00001457A:B07 M00004035A:A04 M00004187D:G09 M00001479B:A01 M00004042D:H02 M00005173B:F01 M00001469D:D02 M00004073B:B01

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M00003946A:H10

M00005218A:G05

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ATCC Accession No.	ATCC No.	ATCC No.	ATCC No.
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	M00005176C:C09	M00001490C:C12	M00001405D:D11
	M00005230D:F06	M00001493B:D09	M00001408A:H04
	M00005234D:B04	M00001504D:D11	M00001408D:D04
	M00005101C:E09	M00001376B:C06	M00001411D:F05
	M00004206A:E02	M00001506B:D09	M00001412A:E04
	M00001570C:A05	M00001511B:C06	M00001413A:F03
	M00005231A:H04	M00001476B:F10	M00001417B:C04
	M00005235A:A03	M00001450D:D04	M00001417D:A04
	M00004118B:B04	M00001433A:G07	M00001418B:F07
	M00005136D:D06	M00001470C:B10	M00001419D:C10
	M00005231C:B01	M00001437D:C04	M00001402B:F12
	M00004153B:B03	M00001447C:C01	M00001423A:G05
	M00004897C:D06	M00001448B:F06	M00001401C:H03
	M00005136D:G06	M00001449D:A06	M00001423D:D12
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	M00005232A:C10	M00001451D:C10	M00001428B:A09
	M00004692A:H10	M00001452A:C07	M00001430A:A02
	M00005101C:B09	M00001453C:A11	M00001432D:F05
	M00004144A:F04	M00001456B:C09	M00001438B:B09
	M00003852B:D11	M00001454B:G03	M00001445B:E04
	M00001660D:E05	M00001454B:G07	M00001445C:A08
	M00003808A:F09	M00001454C:C08	M00001446C:D09
	M00001656A:D10	M00001454C:F02	M00001448A:G09
	M00001671A:H06	M00001454D:D06	M00001449C:H12
	M00003809C:H07	M00001456B:F10	M00001422C:F12
	M00003853C:C06	M00001455D:A09	M00001352C:H10
	M00003860A:A08	M00001455D:A11	M00004375A:H01
	M00003822B:D08	M00001448D:F09	M00004380B:A05
	M00003845A:E12		M00004444B:D11
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	M00003860B:G09		M00001341A:F12
	M00003822B:G01		M00001344A:G07
	M00001670A:C11		M00001345A:G11
	M00003852A:B03		M00001345B:E10
	M00003829D:A11		M00001345C:B01
	M00003854C:F01		M00001346B:B07
	M00003856B:C04		M00001405B:E09
	M00003905A:H11		M00001352B:F04
	M00001530A:F11		M00001451C:E01
	M00003840B:E07		M00001361A:H07
	M00003905B:G03		M00001362B:H06
	M00003840B:E08		M00001372C:G12
	M00003855A:C12		M00001375B:G12
	M00003905B:H05		M00001375B:G12
	M00003303B:H03		M00001376B:A08
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	M00003853B:C08		M00001377C:E12
	M00003839A:F03		M00001382B:F12
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cDNA Ref No.; cDNA Ref ATCC Accession No. ATCC No.

cDNA Ref ES20 M00001638C:G01 M00003845D:B02 M00001653D:G07 M00001578B:A02 M00001590B:H10 M00001595C:A09 M00001596A:E07 M00001607A:B06 M00001607A:D10 M00001652C:B09 M00001671B:F02 M00001632C:D08 M00001638C:H07 M00001652D:B09 M00001614C:E11 M00001633B:B11 M00001651C:A04 M00001639D:G12 M00001671C:F11 M00001638A:B04 M00001637C:H12

M00001669B:H06 M00001639D:F02 M00001590A:C08 M00001636A:C02 M00001614A:A04 M00001639D:G06 cDNA Ref No. ES27 ATCC No.

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Table 23. Library Deposited on January 22, 1999

cDNA Ref No.;

Clone Names in

Library

cDNA Library Ref ES29 cDNA Library Ref ES30 ATCC Accession No. ATCC No. ATCC No. M00001594D:B08 M00001449D:B01 M00001476D:F03 M00001593A:B07 M00001456C:B12 M00001594A:C01 M00001469B:B01 M00001594A:D08 M00001471A:B04 M00001594A:G09 M00001472A:D08 M00001595C:B05 M00001473A:A07 M00001594B:F12 M00001473C:D09 M00001596D:E03 M00001475B:C04 M00001594D:C03 M00001475C:G11 M00001592C:F11 M00001476A:D11 M00001590D:G07 M00001476B:D10 M00001595D:A04 M00001468A:C05 M00001595D:G03 M00001476C:C11 M00001601A:A06 M00001467A:H07 M00001590C:F10 M00001477B:E02 M00001589B:B08 M00001478B:H08 M00001589C:E06 M00001479C:E01 M00001611B:A05 M00001480A:D03 M00001601A:E02 M00001480C:A05 M00001587A:D01 M00001481A:H08 M00001591B:B12 M00001481B:D09 M00001590B:G08 M00001482A:H05 M00001592C:E05 M00001482D:H11 M00001591B:B06 M00001483C:G09 M00001591D:C07 M00001485A:C05 M00001591D:F06 M00001476B:F08 M00001592A:E02 M00001592A:H05 M00001460A:E11 M00001456C:C11 M00001592B:A04 M00001457A:C05 M00001587A:B10 M00001609D:G10 M00001457A:G12 M00005231D:B09 M00001458A:A11 M00001458C:D10 M00001614B:E08 M00001458D:A01 M00005217C:C01 M00001458D:A02 M00001587A:B01 M00001458D:C11 M00001613D:B03 M00001458D:D01 M00001613A:F03 M00001459B:C11 M00001611C:H11 M00001468A:H10 M00001611C:C12 M00001460A:C10 M00001611B:E06 M00001485B:F05 M00001611B:A09 M00001460A:H11 M00001610D:D05 M00001461A:F05 M00001610B:C07 M00001462A:D03 M00001610C:E07 M00001464A:B02 M00001610A:E09 M00001464A:E10 M00001601A:E12 M00001465A:B12 M00001609B:C09 M00001465A:C12 M00001608D:D11 M00001465A:E10 M00001608B:A09

cDNA Ref No.;

cDNA Library Ref ES29 cDNA Library Ref ES30 ATCC Accession No. ATCC No. ATCC No. M00001465A:G06 M00001607D:F06 M00001466A:F08 M00001607B:C05 M00001467A:C10 M00001606A:H09 M00001460A:B12 M00001605A:H03 M00001545A:B12 M00001605A:E09 M00001535A:D10 M00001605A:A06 M00001536A:F11 M00001604A:C11 M00001537A:H05 M00001604A:C07 M00001539A:E01 M00001604A:B08 M00001539A:H02 M00001604A:A09 M00001539B:G07 M00001610A:H05 M00001539D:B10 M00005214B:A06 M00001540D:E02 M00005228A:A09 M00001541B:E05 M00001567A:B09 M00001542A:G12 M00001561A:D01 M00001485B:D09 M00001559A:C08 M00001545A:B10 M00001559A:A11 M00001533A:G05 M00001558A:G09 M00001545A:F02 M00001555A:B12 M00001545A:G05 M00001554A:A08 M00001546A:D08 M00001552A:H10 M00001548A:H04 M00001552A:F06 M00001550A:E07 M00005231C:B07 M00001551A:A11 M00005218D:G10 M00001551A:D06 M00001570A:H01 M00001551A:H06 M00005214D:D10 M00001551D:H07 M00001570C:G03 M00001552A:E10 M00005213C:A01 M00001450A:B08 M00005212D:F08 M00001544A:F05 M00005212A:D10 M00001512A:G05 M00005211C:E09 M00001483B:D04 M00005211A:E09 M00001485B:H03 M00005210D:C09 M00001485C:C08 M00005179D:B03 M00001486B:D07 M00005179B:H02 M00001486B:E12 M00005177D:F09 M00001487B:A11 M00005177C:G04 M00001487B:E10 M00005177B:H02 M00001507A:A11 M00001614D:B08 M00001507A:B02 M00001615A:D06 M00001507A:C05 M00005216B:D02 M00001507A:E04 M00001579C:A01 M00001534A:D03 M00001585B:C03 M00001511A:G01 M00001585B:A06 M00001533D:A08 M00001584D:H02 M00001513A:F05 M00001584A:G03 M00001514A:G03 M00001583D:B08 M00001516A:D02 M00001583B:F02 M00001516A:F06 M00001583A:F07 M00001517A:B11 M00001583A:A05

cDNA Library Ref ES29 cDNA Library Ref ES30 cDNA Ref No.: ATCC No. ATCC Accession No. ATCC No. M00001529D:C05 M00001582D:F02 M00001530A:A09 M00001582D:B01 M00001530A:E10 M00001582A:A03 M00001532A:C01 M00001579D:H09 M00001567D:B03 M00001532D:A06 M00001485B:D10 M00001579C:H06 M00001585B:F01 M00001511A:A02 M00004249D:B08 M00001579B:F04 M00004185D:E04 M00001579A:E03 M00001578C:F05 M00004188D:G08 M00004197C:F03 M00001577D:H06 M00004198B:D02 M00001577B:F10 M00004204D:C03 M00001576C:G05 M00004208B:F05 M00001575D:D12 M00004208D:B10 M00001575D:B10 M00004210B:B05 M00001575D:A02 M00001573B:G08 M00001362D:H01 M00001573A:E01 M00004216D:D03 M00001572A:B05 M00004167A:H03 M00001571D:F05 M00004275A:B03 M00001579D:F04 M00004285C:A08 M00001636A:F08 M00004316A:G09 M00001643B:E05 M00004465B:D04 M00001642C:G02 M00004493B:D09 M00001642A:F03 M00001347B:H04 M00001641D:C04 M00001351C:B06 M00001360A:G10 M00001641C:H07 M00001641C:F01 M00004216D:C03 M00004076D:D04 M00001641C:D02 M00001641B:F12 M00001484C:A04 M00001456B:G01 M00001634A:B04 M00001636B:G11 M00003972D:C09 M00003974C:E04 M00001649C:D05 M00001636A:C03 M00003979A:E11 M00003983C:F03 M00001635D:D05 M00001635D:C12 M00003989B:F11 M00004031D:B05 M00001635B:H02 M00004177C:A01 M00001635B:H01 M00004076B:G03 M00001634D:G11 M00001634D:D04 M00004167D:A07 M00004078A:A06 M00001634A:H05 M00004085A:B02 M00001641A:A11 M00004107B:A06 M00001638B:E12 M00004111C:E11 M00001640A:H02 M00004130D:H01 M00001614C:E06 M00001636D:F09 M00004157D:B03 M00004159C:F09 M00001637A:A03 M00004162C:A07 M00001637A:A06 M00004135B:G01 M00001637A:E10 M00004040A:G12 M00001637A:F10

cDNA Ref No.: cDNA Library Ref ES29 cDNA Library Ref ES30 ATCC Accession No. ATCC No. ATCC No. M00001453B:H12 M00001637C:C06 M00001448A:E11 M00001644A:H01 M00001448B:F09 M00001638B:E03 M00001448B:H05 M00001649A:E11 M00001448C:E11 M00001638B:F10 M00001448C:F10 M00001639A:C03 M00001448D:F12 M00001639A:G07 M00001449B:B03 M00001639B:H01 M00001449C:C05 M00001639B:H05 M00001449D:G10 M00001639C:A09 M00001448A:B12 M00001639C:C02 M00001453A:D08 M00001649C:E11 M00001451B:A04 M00001649C:H10 M00001454A:F11 M00001637C:E03 M00001454A:G03 M00001617A:A08 M00001455A:F04 M00001622A:H12 M00001455B:E07 M00001621C:H12 M00001455D:A06 M00001621B:G05 M00001364B:B06 M00001620D:H02 M00004117A:G01 M00001620D:G11 M00001455D:D11 M00001619D:D10 M00001456B:A06 M00001619C:C07 M00001451A:C10 M00001619A:E05 M00001395A:E03 M00001623A:F04 M00001366D:C06 M00001618A:A03 M00001365A:H10 M00001618B:D09 M00001366D:C12 M00001617A:A01 M00001373D:B03 M00001616D:C11 M00001453B:F08 M00001615C:G05 M00001444D:C01 M00001615C:A11 M00001375B:C06 M00001615B:G07 M00001392C:D05 M00001633D:H06 M00001395A:A12 M00001639C:A10 M00001395A:H02 M00001615B:A09 M00001397D:G08 M00001615B:G01 M00001434A:B10 M00001618A:F10 M00001416A:D09 M00001632C:H07 M00001433C:F10 M00001633D:D12 M00001416A:H02 M00001633D:D09 M00001428D:B10 M00001618A:F08 M00001428B:D01 M00001633D:G09 M00001426D:D12 M00001624A:A03 M00001400C:D02 M00001633C:F09 M00001427C:D01 M00001633C:H05 M00001633C:B09 M00001633A:E06 M00001633C:H11 M00001632C:B10 M00001625D:G10 M00001631D:G05

cDNA Ref No.;

cDNA Library Ref ES29

ATCC Accession No. ATCC No.

cDNA Library Ref ES30

ATCC No.

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M00001624B:B10 M00001633C:A05

M00001625C:G05

Table 24. Clones Deposited on January 22, 1999

cDNA Ref No.;

Clone Names in

Library

cDNA Ref ES31 cDNA Ref No. ES32 cDNA Ref ES33 ATCC Accession No. ATCC No. ATCC No. ATCC No. M00003843A:E04 M00003906A:F12 M00005254D:A10 M00003842C:G03 M00003906B:H06 M00005260B:E11 M00003842A:A03 M00003906C:C05 M00005260A:F04 M00003841D:A04 M00003907A:F01 M00005260A:A12 M00003841B:E06 M00003907B:C03 M00005259B:D12 M00003841C:H11 M00003907B:D05 M00005257D:H11 M00003918A:D08 M00005257D:G07 M00003844A:A11 M00003841C:F01 M00003918A:F09 M00005257D:A06 M00003841C:H08 M00003918C:H10 M00005257C:G01 M00003841C:D07 M00003924A:D08 M00005257A:H11 M00003844D:A07 M00003958B:E11 M00005236B:H10 M00003958B:H08 M00003845D:G08 M00005236B:G03 M00003852C:B06 M00003960A:G07 M00005257C:E05 M00003854B:A07 M00003971B:A10 M00001608C:D02 M00003854B:D04 M00003972D:H02 M00001608C:G04 M00003859D:C05 M00003973C:C03 M00001608D:F11 M00003860B:F11 M00003974B:B11 M00001609C:A12 M00003867B:G07 M00003974D:F02 M00001609C:G05 M00003867B:G08 M00003974D:H04 M00001610C:B07 M00003841B:E03 M00003975C:F07 M00001612D:D12 M00003822D:B10 M00003977C:A06 M00001612D:F06 M00001613A:D02 M00003867D:A06 M00003977C:B03 M00003868B:G06 M00003977D:A03 M00001614A:B10 M00003867B:D10 M00003977D:A06 M00001614C:G07 M00003831C:G05 M00003977D:D04 M00001615C:E07 M00003901C:B01 M00003978D:G04 M00001625C:F10 M00003980A:F04 M00003868C:C07 M00001626D:A02 M00003820A:A08 M00003980B:C11 M00001629A:H09 M00003820B:D07 M00003981C:B04 M00001629D:B10 M00003820B:D10 M00003982A:B12 M00001629D:D10 M00003822D:C06 M00003982C:G04 M00001630C:F09 M00003823B:F07 M00003984D:B08 M00001631A:D03 M00003824C:D07 M00003985B:G04 M00001631A:F06 M00003825B:B10 M00003985D:E10 M00001631A:F12 M00003825B:B11 M00003986B:A08 M00001631B:H04 M00003828A:D05 M00003986C:D09 M00001633A:F11 M00003822D:D04 M00003986D:C08 M00001633A:G10 M00003830C:A03 M00003987B:E12 M00001633B:A12 M00003840D:H10 M00003987B:F08 M00001633B:E03 M00003832A:A09 M00003987C:G03 M00001633C:A08 M00003833B:B03 M00003988D:A08 M00001633C:E12 M00003833B:C12 M00003989C:D03 M00001635B:B02 M00003834B:G04 M00003989C:G05 M00001636A:H12 M00003835A:A09 M00003989D:F12 M00001638A:C08 M00003835B:H11 M00004029B:F01 M00001638B:C08 M00003835D:G06 M00004029C:C05 M00001639D:C12 M00003837C:E05 M00004029C:G10 M00001640A:F05 M00003837C:F10 M00004030D:F11 M00001642D:G08

cDNA Ref No.; ATCC Accession No.

cDNA Ref ES31	cDNA Ref No. ES32	cDNA Ref ES33
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M00003878C:F06	M00004036D:B04	M00001651C:D11
M00003878C:G08	M00004036D:B09	M00001651C:G12
M00003879A:A02	M00004038A:F02	M00001652B:D06
M00003879A:B08	M00004038D:G06	M00001652D:G02
M00003879A:C11	M00004039A:C03	M00001652D:G06
M00003879A:D02	M00004039A:H11	M00001653A:A05
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M00003880C:E11	M00004040C:A01	M00001654B:A01
M00003880C:H03	M00004051D:E01	M00001654C:D10
M00003901B:F10	M00004072D:F09	M00001654C:G07
M00003901B:110	M00004073A:D10	M00001654C:G09
M00003877C:A11	M00004075B:G09	M00001655C:C07
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M00003813D:B01	M00004076A:B12	M00001655D:E08
M00003901B:G11 M00001692A:G06	M00004078A:C11	M00001656A:H12
M00001092A:G00 M00003903C:C05	M00004078A:E05	M00001656C:C04
	M00004078A:E03	M00001656D:C04
M00003903C:E12		
M00003903D:C12	M00004078B:C11	M00001657C:C11
M00003903D:D10	M00004078B:F12	M00001657D:A10
M00003903D:H11	M00004079D:G08	M00001659D:A09
M00003904A:C04	M00004081A:E02	M00001661D:D05
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M00003904C:A08	M00004081C:A10	M00001664B:F06
M00003881B:F10	M00004083A:E08	M00001669B:C12
M00003871D:G06	M00004083B:C01	M00001669C:B09
M00003868D:D09	M00004086D:G08	M00001670A:F09
M00003868D:D11	M00004087B:A12	M00001678C:F09
M00003870C:A01	M00004087C:A01	M00001693A:H06
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M00003871A:A02	M00004088D:B05	M00003809B:A03
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M00003878C:D08	M00004096D:H03	M00003813B:F02
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M00003877C:G12	M00004100B:C07	M00003813D:B12
M00003875A:A07	M00004103B:E09	M00003813D:C02
M00003875A:B01	M00004105C:B05	M00003813D:G06
M00003875B:F12	M00004105C:C08	M00003814B:C01
M00003875C:A01	M00004107A:A12	M00003817C:A10
M00003875C:A09	M00004107B:D07	M00003817C:G06
M00003875C:G02	M00004108B:B02	M00003817D:D12
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cDNA Ref No.; ATCC Accession No.

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•	M00001675C:A04	M00005229B:H06	M00003966C:F03
	M00001660B:A09	M00005229D:H03	M00003973D:F08
	M00001659D:C09	M00005229B:H09	M00003974D:E01
	M00001659D:B05	M00005230B:H07 M00005232A:H12	M00003974D:H07
	M00001654D:F12	M00005232R:F112	M00003974B:H07
	M00001659A:D12	M00005233D:H07	M00003976B:H07
	M00001655A:B11	M00005235B:F10	M00003978A:E01
	M00001658B:A07	M00005236A:E04	M00003978A:E09
	M00001658A:G09	M00005236A:G10	M00003978C:A12
	M00001657D:A04	M00005236B:A12	M00003980C:E12
	M00001657B:B04	M00001448B:A07	M00003980C:F12
	M00001656B:E01	M00001448B:G07	M00003981A:A07
	M00001660B:E04	M00001448D:E11	M00003981B:B12
	M00001659C:F10	M00001455A:D10	M00003982A:G03
	M00003808C:A05	M00001455A:E11	M00003982B:C10
	M00001694D:C12	M00001476D:F12	M00003982B:H10
	M00003746C:E02	M00001478A:F12	M00003983A:D02
	M00003779D:E08	M00001482C:F09	M00003983A:F06
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	M00003794D:G03	M00001485D:A05	M00003983D:H02
	M00003797A:C11	M00001487C:A11	M00003985A:C01
	M00003797A:D06	M00001487C:G09	M00003986C:G11
	M00003797A:G03	M00001530A:B02	M00003986D:H12
	M00003800B:F03	M00001530A:H05	M00004027A:A08
	M00003805A:F02	M00001530D:A11	M00004028A:B10
	M00003806B:C09	M00001539B:B10	M00004028A:G03
	M00001674A:G11	M00001567A:C04	M00004029B:A01
	M00003806D:D11	M00001567A:C11	M00004029B:A06
	M00001693D:E08	M00001567C:B08	M00004029B:G10
	M00003808D:D08	M00001567C:E07	M00004029C:F02
	M00003809A:C01	M00001570C:B02	M00004029C:F05
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	M00003809B:B02	M00001570D:E07	M00004030B:D08
	M00003809B:E10	M00001573B:A06	M00004030C:A08
	M00003813A:B02	M00001573B:H12	M00004030C:C02
	M00003813A:D08	M00001575A:D05	M00004034C:F05
	M00003813B:E09	M00001575B:C01	M00004035B:F05
,	M00003814B:C12	M00001576C:H02	M00004036A:A11
	M00003814B:F12	M00001577A:A03	M00004037C:D04
	M00003815C:C06	M00001578B:A06	M00004038A:E05
	M00003815C:D12	M00001579D:F02	M00004038B:D01
	M00003817B:C04	M00001582C:C04	M00004039C:E02
	M00003806B:G05	M00001582C:G02	M00004039D:B10
	M00001679A:D10	M00001584A:A07	M00004040A:A07
	M00001675C:C03	M00001584D:B06	M00004040A:B04
	M00001675C:D12	M00001584D:C11	M00004040A:C08

cDNA Ref No.:	cDNA Ref ES31	cDNA Ref No. ES32	cDNA Ref ES33
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## We Claim:

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1. A library of polynucleotides, the library comprising the sequence information of at least one of SEO ID NOS:1-3544, 3546-4510, 4512-4725, 4727-4748, and 4750-5252.

- 2. The library of claim 1, wherein the library is provided on a nucleic acid array.
- 3. The library of claim 1, wherein the library is provided in a computer-readable format.
- 4. The library of claim 1, wherein the library comprises a differentially expressed polynucleotide comprising a sequence selected from the group consisting of SEQ ID NOS:65, 174, 203, 252, 253, 387, 419, 420, 491, 552, 560, 581, 590, 648, 693, 726, 746, 990, 1095, 1124, 1205, 1354, 1387, 1780, 1899, 1915, 1979, 2007, 2024, 2245, and 2325.
- 5. The library of claim 1, wherein the library comprises a polynucleotide differentially expressed in a human breast cancer cell, where the polynucleotide comprises a sequence selected from the group consisting of SEQ ID NOS:15, 36, 44, 45, 89, 146, 154, 159, 165, 174, 172, 183, 203, 261, 364, 366, 387, 419, 420, 496, 503, 510, 512, 529, 552, 560, 564, 570, 590, 606, 644, 646, 693, 707, 711, 726, 746, 754, 756, 875, 902, 921, 942, 990, 1095, 1104, 1122, 1131, 1142, 1170, 1184, 1205, 1286, 1289, 1354, 1387, 1435, 1535, 1751, 1764, 1777, 1795, 1860, 1869, 1882, 1890, 1915, 1933, 1934, 1979, 1980, 2007, 2023, 2040, 2059, 2223, 2245, 2300, 2325, 2409, 2462, 2486, 2488, and 2492.
- 6. The library of claim 1, wherein the library comprises a polynucleotide differentially expressed in a human colon cancer cell, where the polynucleotide comprises a sequence selected from the group consisting of SEQ ID NOS:33, 65, 228, 250, 252, 253, 280, 282, 355, 370, 387, 443, 460, 491, 545, 560, 581, 603, 680, 693, 703, 704, 716, 726, 746, 752, 753, 1095, 1104, 1205, 1241, 1264, 1354, 1387, 1401, 1442, 1514, 1734, 1742, 1780, 1851, 1899, 1915, 1954, 2024, 2066, 2262, and 2325.

7. The library of claim 1, wherein the library comprises a polynucleotide differentially expressed in a human lung cancer cell, where the polynucleotide comprises a sequence selected from the group consisting of SEQ ID NOS: 10, 54, 65, 171, 174, 203, 252, 253, 254, 285, 419, 420, 466, , 491, 525, 526, 552, 571, 574, 590, 693, 700, 726, 742, 746, 861, 990, 922, 1088, 1288, 1355, 1417, 1422, 1444, 1454, 1570, 1597, 1979, 2007, 2024, 2034, 2038, 2126, and 2245.

- 8. The library of claim 1, wherein the library comprises a polynucleotide differentially expressed in a human cancer cell, where the polynucleotide comprises a sequence selected from the group consisting of SEQ ID NOS:648 and 1899.
- 9. An isolated polynucleotide comprising a nucleotide sequence having at least 90% sequence identity to an identifying sequence of SEQ ID NOS:1-3544, 3546-4510, 4512-4725, 4727-4748, and 4750-5252, or a degenerate variant or fragment thereof.

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10. The polynucleotide of claim 9, wherein the polynucleotide comprises a sequence of one of SEQ ID NOS:2503, 2504, 2550, 2555, 2578, 2656, 2667, 2712, 2723, 2728, 2738, 2734, 2754, 2758, 2760, 2832, 2835, 2842, 2843, 2849, 2893, 2933, 2956, 2971, 2981, 3009, 3018, 3019, 3046, 3084, 3190, 3129, 3173, 3226, 3227, 3274, 3290, 20 3356, 3365, 3377, 3381, 3390, 3391, 3404, 3407, 3408, 3409, 3418, 3419, 3451, 3597. 3600, 3618, 3632, 3635, 3646, 3648, 3657, 3665, 3669, 3670, 3671, 3656, 3680, 3686, 3695, 3696, 3700, 3710, 3736, 3762, 3763, 3774, 3775, 3791, 3804, 3806, 3836, 3895, 3905, 3919, 3920, 3927, 3936, 3951, 3974, 3998, 4036, 4038, 4044, 4056, 4072, 4117, 4119, 4152, 4153, 4154, 4172, 4175, 4159, 4175, 4205, 4216, 4223, 4228, 4238, 4241, 25 4243, 4251, 4253, 4261, 4263, 4278, 4288, 4322, 4330, 4343, 4359, 4363, 4364, 4365, 4373, 4375, 4384, 4385, 4406, 4409, 4431, 4434, 4441, 4442, 4444, 4455, 4469, 4473, 4477, 4482, 4489, 4495, 4496, 4498, 4525, 4535, 4536, 4540, 4560, 4616, 4562, 4586, 4605, 4629, 4653, 4654, 4658, 4659, 4660, 4661, 4664, 4665, 4668, 4684, 4682, 4688, 4689, 4710, 4718, 4733, 4724, 4733, 4746, 4755, 4760, 4710, 4777, 4785, 4792, 4794, 4801, 4807, 4821, 4822, 4847, 4850, 4854, 4856, 4866, 4885, 4900, 4901, 4905, 4914, 30 4925, 4929, 4931, 4943, 4944, 4959, 5111, 5020, 5041, 5046, 5059, 5083, 5090, 5094, 5102, 5125, 5174, 5197, 5208, 5217, 5237, 5239, 5241, 5243, 5248, and 5252.

11. A recombinant host cell containing the polynucleotide of claim 9.

- 12. An isolated polypeptide encoded by the polynucleotide of claim 9.
- 5 13. An antibody that specifically binds a polypeptide of claim 12.
  - 14. A vector comprising the polynucleotide of claim 9.
- - 16. A method of detecting differentially expressed genes correlated with a cancerous state of a mammalian cell, the method comprising the step of:

detecting at least one differentially expressed gene product in a test sample derived 15 from a cell suspected of being cancerous, where the gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS:10, 15, 33, 36, 44, 45, 54, 65, 89, 146, 154, 159, 165, 171, 172, 174, 183, 203, 228, 250, 252, 253, 254, 261, 280, 282, 285, 355, 364, 366, 370, 387, 419, 420, 443, 460, 466, 491, 496, 503, 510, 512, 525, 526, 529, 545, 552, 560, 564, 570, 571, 574, 581, 590, 603, 606, 644, 646, 648, 680, 693, 700, 20 703, 704, 707, 711, 716, 726, 742, 746, 752, 753, 754, 756, 861, 875, 902, 921, 922, 942, 990, 1088, 1095, 1104, 1122, 1131, 1142, 1170, 1184, 1205, 1286, 1288, 1289, 1354, 1355, 1387, 1417, 1435, 1444, 1454, 1535, 1570, 1597, 1734, 1742, 1751, 1764, 1777, 1780, 1795, 1860, 1869, 1882, 1890, 1899, 1915, 1933, 1934, 1954, 1979, 1980, 2007, 2023, 2024, 2034, 2040, 2059, 2126, 2223, 2245, 2262, 2300, 2325, 2409, 2486, 2462, 25 2488, 2492, 1241, 1264, 1401, 1422, 1442, 1514, 1851, 1915, 2007, 2024, 2038, 2066, and 2245;

wherein detection of the differentially expressed gene product is correlated with a cancerous state of the cell from which the test sample was derived.

17. The method of claim 16, wherein said detecting step is by hybridization of the test sample to a reference array, wherein the reference array comprises an identifying sequence of at least one of SEQ ID NOS: 65, 174, 203, 252, 253, 387, 419, 420, 491, 552,

560, 581, 590, 648, 693, 726, 746, 990, 1095, 1124, 1205, 1354, 1387, 1780, 1899, 1915, 1979, 2007, 2024, 2325, and 2245.

- 18. The method of claim 16, wherein the cell is a breast tissue derived cell, and the differentially expressed gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS:36, 44, 45, 89, 146, 154, 159, 165, 172, 174, 183, 203, 261, 364, 366, 387, 419, 420, 496, 503, 510, 512, 529, 552, 560,564, 570, 590, 606, 644, 646, 693, 707, 711, 726, 746, 754, 756, 875, 902, 921, 942, 990, 1095, 1104, 1122, 1131, 1142, 1170, 1184, 1205, 1286, 1289, 1354, 1387, 1435, 1535, 1751, 1764, 1777, 1795, 1860, 1869, 1882, 1890, 1915, 1933, 1934, 1979, 1980, 2007, 2023, 2040, 2059, 2223, 2245, 2300, 2325, 2409, 2462, 2486, 2488, and 2492.
- 19. The method of claim 16, wherein the cell is a colon tissue derived cell, and the differentially expressed gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS:33, 65, 228, 250, 252, 253, 280, 282, 355, 370, 387, 443, 460, 491, 545, 560, 581, 603, 680, 693, 703, 704, 716, 726, 746, 752, 753, 1095, 1104, 1205, 1241, 1264, 1354, 1387, 1401, 1442, 1514, 1734, 1742, 1780, 1851, 1899, 1915, 1954, 2024, 2066, 2262, and 2325.
- 20. The method of claim 16, wherein the cell is a lung tissue derived cell, and the differentially expressed gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS: 10, 54, 65, 171, 174, 203, 252, 253, 254, 285, 419, 420, 466, 491, 525, 526, 552, 571, 574, 590, 693, 700, 726, 742, 746, 861, 922, 990, 1088, 1288, 1355, 1417, 1422, 1444, 1454, 1570, 1597, 1979, 2007, 2024, 2034, 2038, 2126, and 2245.
  - 21. The method of claim 16, wherein the differentially expressed gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS:648 and 1899.

## SEQUENCE LISTING

<110> Williams, Lewis T. Escobedo, Jaime Innis, Michael A. Garcia, Pablo Dominiguez Sudduth-Klinger, Julie Reinhard, Christoph Giese, Klause Randazzo, Filippo Kennedy, Giulia C. Pot, David Kassan, Altaf Lamson, George Drmanac, Radoje Crkvenjakov, Radomir Dickson, Mark Drmanac, Snezana Labat, Ivan Leshkowitz, Dena Kita, David Garcia, Veronica Jones, William Lee Stache-Crain, Birjit

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 ggcaggttca acceteagae cacagettat tagetatgag egcagatggt tetagegttt
                                                                      120
 atcctccctg ctcctgtgta aatcagggct gatggggcga caggtgggaa aactcacctg
                                                                      180
                                                                      240
 300
       <210> 19
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 19
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 ttatgttgac ataggaaatg gagattagga caacatttag ttcagcgact gacttcatga
                                                                       60
 cctacacatc ccgcatggag atgacttaga agcaggggat atgcccttgg acctggtgtc
                                                                      120
                                                                      180
 aaageteteg tttaaacage etegtgeagt gtgtegetae cacagagete etgtttaaac
 agectegeae ggegtgtege tgeeacaeet gaeaetattg tattagttta egttgetgag
                                                                      240
                                                                     300
      <210> 20
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 20
tggaggtget gaegeeaggt aggteageag tagaeeeage eecaaeeeac aagttteget
ctccagactg cgcaagcgca aaggatacga aaacgccccc ggcgttctgg gggctgggac
                                                                      60
cgaggaaagc gctgagtata gctcttgcgc gtccagtcac aaatgacgtc ccttctgtac
                                                                     120
                                                                     180
```

```
cccgccctgt aggcgggagc atccaatcaa cttcgagagc gtaggcccca cctatcgtgg
                                                                       240
gtcgagttgc ttggcggtcg tggttccgga ggttcctcgg gatgtcggtg gccttcgtac
                                                                       300
      <210> 21
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 21
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ctgttctact ttgggtccgc gcgaagccca ctcacgtgtg atctgtgttg cccctgggag
                                                                       120
qcccqqqqcq accqqaaaaq qqctctctca agttctqaaa agagaatctg ccaccagatc
                                                                       180
                                                                       240
quatttegae ecetgagett gtteggaegt atggtecaaa tteagattaa ggtggteace
caaccegaga tgtcaggaaa ggccttctgc agagaaaatg tccccccacc cgccatctgc
                                                                       300
      <210> 22
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 22
                                                                        60
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ctaatcattt ctagctggct ggcctcctca gagcatagga aacctgaggt caggaattcg
                                                                       120
                                                                       180
agaccageet ggecaacatg gtaaaaceee atetetaeta aaaatataaa aattageeag
                                                                       240
gcatggtggc gcacacctgt aatcccagct aatcaagagg ctgaggcagg agaattgctt
aaatctggga ggcggaagtt gcagtgagcc aagatcgcgc cactgaactc cagcctaggc
                                                                       300
      <210> 23
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 23
aagttcaagc aatgattaat ctagetteee teetggtgga tgaetgagge etttgeetga
                                                                        60
qqacaacttt aaaqaqatat tqaatqaaqc tatgatacct gtagcagtta ctgccatttt
                                                                       120
                                                                       180
qqacccataa actqacaatc cttaaacatt accaqqaqqq caqaqcqqaa agaacattga
tgtcatcact gagttgctgg attaccttac tctagaaata gccaactctg catgtttggt
                                                                       240
tattttttta aaaagtcttc tttattattt acatcatttt gaatgggctc taactctagc
                                                                       300
      <210> 24
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 24
agtcaatcca aatgatttca gagacctgac tttgctgttt gaccactctc agctttttgg
                                                                        60
tatcagacte cetteaetgg eteceaaaaa etecagggee atgtttetgg aacagtggaa
                                                                       120
agcagggaaa tagaaatggg gcctcaggaa ttagaaataa ggctttggca ttcaaatgtc
                                                                       180
gcacctagca tgctgtgact agcgataagt gtgcaaggag tgttgaagca gtaggaagac
                                                                       240
ttgtggtgag gcggggcagg ggaatnnnnn nnnnnnnnn ncagagacca nnggcctttc
                                                                       300
```

```
<210> 25
       <211> 281
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc_feature
       <222> (1)...(281)
       <223> n = A, T, C \text{ or } G
       <400> 25
 tgttcctgtg ccagaaagaa agttaaaata cttgcttaag aaagggaggg gggtgggagg
                                                                           60
 ggtgtaggga gagggaaggg agggnnnnnn nnnnnnggcn tacnttttcc tacatttcan
                                                                          120
 tntccctttt ncctatctaa gengtnctat ctngtcaatn cacttntenn tnnnttaaen
                                                                          180
 conticennn neanctitee ettnnteetn cetntataet nitgetniga nnigetgnee
                                                                          240
 anathtgttt cccttcctcc atcctnncat accccttact t
                                                                         281
       <210> 26
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 26
cgaggcagtt agctagttgt ctgtgaaata aaatactaat gattgaactt tctaggaagt
                                                                          60
acctattctg ctaatagtgt aaatatacac ttatccaggg tcagaaatac tcaagtttac
                                                                         120
ccacttaaaa gatctagaaa atacatgaac ttgggcttac ttgccagtta aaattgttta
                                                                         180
tctcagaatt gtaccatcac cttaattaaa gtagatatgc taggattatc ctgataacta
                                                                         240
attaacatag cettteecet tagtgttett cacetgaatg tagtagtgga etetteaagt
                                                                         300
      <210> 27
      <211> 277
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(277)
      \langle 223 \rangle n = A,T,C or G
      <400> 27
gtgctgcaga caacacact tcctgatgga ggtgtccggc tgatggagaa gtctgtgggc
                                                                         60
ttgtaaatca tetttgatgt taaccaggee gaegetgtgg ceacatteeg aaagattaac
                                                                        120
cctgtcaaac cctannnnnn nnnnnnnnn nnnggatttg atnagcctgt nccanacctc
                                                                        180
tgcagcctcn ancggtngtn ntaccatagt ggggatgacc ctctgatact ttgncctggt
                                                                        240
ngancatgnt gacanntgct tctacagctt nngggac
                                                                        277
      <210> 28
      <211> 293
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(293)
      <223> n = A, T, C or G
```

```
<400> 28
tggcatcanc nagcegtgca gtccgctntt cactgttnna nggcctccna gtgnntcana
                                                                        60
gcattggacc catctntanc aaaagtngag gccaaaaagn tnagtgactt gacaagtgnc
                                                                       120
agagtaaccg tgtagacaga gcagtgtana cagaaatcaa ncntcagtcc cangngtana
                                                                       180
cctgatcntg gngatcactg ccctgagtgg cttgccagca cagccagngc catcagtaat
                                                                       240
ttgnangacn tancacnnnc nnnnttaagt taaaaaaccc ccattnnnna agg
                                                                       293
      <210> 29
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 29
ggctaacttg ccttgtttta ctattgatgt ttgtgtcctg tgtccttaac actttaagca
                                                                        60
gegtgttete acctaaagge taatagtttt aagtaagttt ettttettt ttttaattta
                                                                       120
aaaattaaaa aatttttaat taacttttt taaattaaaa aaaattatta attatttta
                                                                       180
atagacagga tettgetatg etgtecagge tggtettgaa eteetggget caagtgatee
                                                                       240
tcctgccttg gcctcccaaa gtgctggtat tacaggtgtg agtcactgca cctggccaag
                                                                       300
      <210> 30
      <211> 281
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(281)
      <223> n = A, T, C or G
      <400> 30
ttaaaggatt taaggannna nanntnettn tggtttgeee ntteenaenn tnetggggga
                                                                        60
aangannene nannaggtna ttetnnttee etnangeena nanggnaaen tggnttgnee
                                                                       120
ttaaacnttt gnnttanatn gggtanntgn ntttttnaaa antnggtgcc ntnaangann
                                                                       180
ntttgagett tgeagtagat tatgetgeat cetegtggea aaattetgta ttettagtga
                                                                       240
ttgttacaaa cccctttatt gctgtctgag aaaggaaaga t
                                                                       281
      <210> 31
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 31
gtcaagggct gcatgaagtg cgagggccga agagtctgtg tggactcagt gggacatggg
                                                                        60
cgtggaagag cagggaggtc tgaatgggaa gtaaagacac agatgcgggt atgcacacag
                                                                       120
ttctttgaag atgctcggcc gaggagacaa gagtaatcag gtcaggggca aaaaggggta
                                                                       180
                                                                       240
ctcgcctgag gaagtaaaca ttggatgtcc acagctcaga gttagttcaa ggtcacattc
aaattagata ccccgatttc ccccggcctg ctgtctaaat gccaaatcaa gtcatggctt
                                                                       300
      <210> 32
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 32
gagcagaaac gcaagatatt tccctttgct ggctaaacag aagcctgggc acccagaatg
                                                                        60
tgatatcctg accaatgttt ttgcaattct ctcagcgaag aatctttctg atgccacagc
                                                                       120
```

```
cagtattgta atggacatag ttgatgacct tcttaacctt ccagatttcg agcctacaga
                                                                        180
aacagttttg aacttgctgg taactggatg tgtataccct ggcatagcag aaaacatcgg
                                                                        240
tgagtctatc acaataggag gaagattaat tctacctcat gtacctgcaa ttcttcagta
                                                                        300
      <210> 33
      <211> 286
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(286)
      <223> n = A,T,C or G
      <400> 33
gtccagggcc cangttttaa tttnttttta aaaagcttta ggtcttgccg ggacggtggt
                                                                         60
tcacncnnnn nnnnnnnnn nnnnnnnagg cctaggeggg tggatcacaa ggtcagcagt
                                                                        120
tcaagaccag cctgaccagc atggtgagac cctgtctcta ctggaaatac aaaaaaattg
                                                                        180
gctgggcgag gtggcaggca cctgtggtcc cagctacctg ggaggctgag gcgggagagt
                                                                        240
ctcttgaaac tggaaggcag aggttgcggt gagccgagat tgcgcc
                                                                        286
      <210> 34
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C \text{ or } G
      <400> 34
gtaggttgaa agcctggtca gctattctgc aagacagtca aaaattgttt acagggctgg
                                                                        60
acagcatatt gctattgaaa aatagctatt aggagacctt gcacaatttg tgaaacattg
                                                                       120
ttaggctcat tgtactgtgt aaaatcagga aagaatttgg gaacatactg atacaacaaa
                                                                       180
aagataggtt gtcaaaccct cacttcacca gaaagctaaa ttaaccagat aagtctttct
                                                                       240
gaannnnnn nnnnnnnnt ttgntcctgc gctgtacnna naccttanan tgggtaatct
                                                                       300
      <210> 35
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 35
attgaggaag atctaggtaa aacctttaag ttaaccttct aagtctcaga cacgtaaacc
                                                                        60
caagtgtggc aaaggaactc attgctctcg aaatgcatat atgttggttt atagactgca
                                                                       120
aactcaagaa aagcccaaca ctactgttca agttccagcc tttcttcaag agctggtata
                                                                       180
tcgggataat tccaaatttg aggagtggtg tattgaaatg gctgagatgc nnnnnnnnn
                                                                       240
nnnnnnaaa ggaaaagctn ancacgaaga ggntaaggag ctgtaccaaa ggttacctgc
                                                                       300
```

<210> 36

```
<211> 294
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(294)
      <223> n = A, T, C or G
      <400> 36
gettggteac ceeegaggag ageaggaage tgeggttetg gaacetggag tttgagagee
                                                                         60
agtettteet gtatagaeag gtaeggagga tgaeggetgt getggtggee gtggggetgg
                                                                        120
gggctttggc acctgcccag gtgaagacga ttctggannn nnnnnnnccc ctggncaagc
                                                                        180
acnacacaca tgtngcccca neccaegget tantectean nteaegeget gtacnggaac
                                                                        240
ctctncnctg cctnctgcac cctgcaggnt nnaaactacn gcacccactg ataa
                                                                        294
      <210> 37
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 37
gtgaatgctg tgcctgtggc cccacctgtg tgtgatgtcg ccagaaccca gccgactcct
                                                                        60
teagagaaag etgeaggagt cetggagggg geeettggge cacatgttgt cactaacett
                                                                       120
tatctctatc caatcaaatc ctgtgctgca tttgaggtga ccaggtggcc tgtatgaaac
                                                                       180
caagggctgc tatatgaccg gagctggatg gttgtgaatc acaatggtgt ttgcctgagt
                                                                       240
cagaagcagg aacccegget etgeetgate cagecettea tegaettgeg geaaaggate
                                                                       300
      <210> 38
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 38
tcttgttcaa cattatatcc ttagggatta gtacataggc ttgcaaatag caggtatgaa
                                                                        60
taaaaaatta ttgaatgagt aaatgaattt aaaatataag ttacttaggc ggtatcttca
                                                                       120
ggcatatctg tgtttatgtg qtattcaatg gcccacaaat gtctacatcc taattcctaa
                                                                       180
gatctgtaaa cattaatttg catgacaaaa gagactttac agatgtgatt aaatgaaagg
                                                                       240
attittgacat gcagataata tcctqtattc ttcatqtqqa accaatqtat ttacaaqqqt
                                                                       300
      <210> 39
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 39
ettetgeece eggeaettge eatgtteeag tggggggeag atecteagga etteaegggt
                                                                        60
atggttgcca gctgtqttcc tqqcccctqq acacacaqtq tqqcatcctc atgtttqcac
                                                                       120
actttcccca ggctccagtg gcctggatgt caatgtttac aaaggggcaa ggacctctca
                                                                       180
tggacactgg cctctaqccc tctqtttttq tttqatqaat tctqttataa cctatqqqqt
                                                                       240
caggatatga gtcctgggca ttatttatcc aggacccatc ctcttgggtg ggttttgggt
                                                                       300
      <210> 40
      <211> 285
      <212> DNA
```

<213> Homo sapiens

```
<220>
      <221> misc_feature
      <222> (1)...(285)
      <223> n = A,T,C or G
      <400> 40
aatttenett tennagnttn egnneggnet taangntttt tngggenaaa gneecentnn
                                                                         60
ggngnctant ttgtgatncn gngngaaaan atttttctca ttctgaggtc cacatggcac
                                                                        120
cttctgggcc agcagctgtg gccggtgtat caagggcgcc cttaaagctg gaacattcca
                                                                        180
gcaagettet tgcgcttete tgcaccegge aggeceaett teetggcace etegaettta
                                                                        240
tataaaagtt gcactgcgtt tcaaaaaccc acccctgaag aataa
                                                                        285
      <210> 41
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 41
gtttcattta agaagaatga gctagataaa tgtgctcttc tggttacccc accctgacag
                                                                        60
agtgcatttt tacacggcta gcaggggttg agactgcagc ctggcctgcc agccattgga
                                                                       120
ggtgtttaag gaagggcaga taatgtgact ctttgcgggg tgccatctgc ttacccatta
                                                                       180
gcgagcagag ggggtttctg cgggtgaccc ccagcatatt tctaggttac ttatgggcag
                                                                       240
atttgtaagt gacaaaactc cagctgatgc tgggaatggg gagagggccc ttgagggact
                                                                       300
      <210> 42
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 42
cgtctgtaat cccagctgct tgggaggctg aggcaggaga atcacttgaa ccctggaggt
                                                                        60
ggcggttgca gtgagcacag atcatgccac tgcactccag cctgggcaac aaaacgagac
                                                                       120
ttcgtctcaa aaaaaaaan nnnnnnnnn nnatcctttg gncgggttct cccaaattnt
                                                                       180
tttgaggggn ccatggncaa cngcttnagc tttgttttgg caaccccntg cccnaagncn
                                                                       240
catatagget gtnettnace ttgtttecaa ggetgaggan canaaagtan cetntgtttt
                                                                       300
      <210> 43
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 43
ccatagectg ttgagtgttc ccagatgtga ctcacctttc tgctgccctc ttcatgcagg
                                                                        60
cctactgact cataattcac ttgtcccaaa agccacccca caagcctgag ccaacctgct
                                                                       120
gcctgacgcc acagtcattg gcagaggtct gggcattatt aatctataaa aatccatgct
                                                                       180
ttacacctgg acagtacaca gggacttcag agattgcacg ttggaataca ttctcccaag
                                                                       240
actgaggttg ttcggtttta attcctgtag tccaatcaca caatttctta tggaaaacct
                                                                       300
      <210> 44
      <211> 300
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<212> DNA

<213> Homo sapiens <400> 44 caaaagataa tgtgaaactg ttggtggact ctctggtgag gggtgggcag aacttgctgc 60 tactagagtt cttgggttct ccatgatgtt caccctgggg ctggcccact gtgtcctgaa 120 tgtttttgtt attttttgtt ttattttta aacaaactgc tgtttttata tacctggaat 180 ctgttgttgg cttcagagcc aqtqqttaaa gagcagggtc ccaaggattg ggagatctag 240 tgtctgctct cctgccctgc aactcaattq gqcctttttc ggtgacctca tccaaggcca 300 <210> 45 <211> 300 <212> DNA <213> Homo sapiens <400> 45 cttgatggca gtagaaagac ctcattttca taacataact actcttgata ctttctttaa 60 aaacactttt tattaaagat totatoatga ggtatttggc tgggagotgg gaggotaaag 120 cgctcatgtc ctggctcttc agtgaattta actgtgtgac cttgggcaag tcacttaacc 180 tototgtgot toagtotoco tgtottgtaa aatgggagta atacotacot cacagggttg 240 ttgtggggat taattagaga taatgtctgt aaagcattta aggttcttga agaaggcact 300 <210> 46 <211> 300 <212> DNA <213> Homo sapiens <400> 46 ggccggttat tctctcttta cagatagcta tagacatcat tttaggaagt gttgcagtct 60 ggcatttgtg ctattgttca ttctctgtga aggctgttca tagttgctat agcctgtgtt 120 tagttttgtg atttcatcaa tcccatcttt ctgtgtgagt aatgcattct aaacatccta 180 ccccacttta gaaacggacg tggggaacgc ttggtcattt aagccaacaa taaatttagg 240 tgaatgtccc taagtgttta ctgtttttat ccagtcaagg atttgctttt ccttgaacat 300 <210> 47 <211> 300 <212> DNA <213> Homo sapiens <400> 47 gttatattaa attattettt gtttttettt ttetttaat aaageetgea agttaetaaa 60 ttgtagtttc ataaattctg tagtaaagta tcatcttggc agtgtgccaa aggtgaaaat 120 gatgetttet etaacagaga aattettagt gactecagte gtagaaaaae gtetttacaa 180 cctgaataag attgaagaat tgtgaacata ccatggccta ttggatgaat catttgccgt 240 aggotaaato agaotgtagg gtttgogatg gatttatgga gtatgtgggt atagaaatoa 300 <210> 48 <211> 300 <212> DNA <213> Homo sapiens <400> 48 gatgtcacta gacaactggc agtttaatgc tcacacccct gaactagaag aggttccaca 60

120

180

240

300

ggatccctgg ccaatgccag ggatctttag gtcagcagtc atgtcaagat gctctgattc

tccacaaacc cagettettt eccaaactge agggaggteg gtetgeagtg acttacetag

tattttgttg tatccctggc tcacagtgtc tccccggtct aggatcttcg aatcgaaatc

ccatgaagca catattgcag tgctctctga ctctcacccc tgaaatagag ctggtgggat

```
<210> 49
       <211> 297
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc_feature
       <222> (1)...(297)
       <223> n = A, T, C \text{ or } G
       <400> 49
ctgtttcnnt cctaatggat agttagctga tttctgttgt ttttctctga naaccaatgt
                                                                          60
tgcaatgtgt ctttagtctg gatagctatt gttaaactgc ctacaaagtg agcagatcta
                                                                        120
ttaatatcag tttacacttg ggcctttggg gtttgagagg acctttttct ctgcaaccat
                                                                        180
ctgtgggctg atttttgcat tttacttgtg ataacaaggg agggtaactg cccctttcc
                                                                        240
atcatccccc aaaagggaaa aaatgagcac tagcataaaa gttctttgga gaaatat
                                                                        297
       <210> 50
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 50
ttccttggcc actctaagtc agatagtcca gagccaggcc ctttgggatg tgacaccgag
                                                                         60
ataaatcaga gaaaagctgt gaagcttggg gaacagaggg acttttggtg aagtaggtgg
                                                                        120
tctgcagttt ctatcttctt gggaaaagca agctggaaaa gtgaacagtg gttggtaggc
                                                                        180
catagtgctc ccagctgggt gacataatga ccacacagca cagtgatgtt attagcaact
                                                                        240
gtgtggtgga gtagttgtgg gctggacaaa tcaatcgtgg gaaattgtta ggagttttat
                                                                        300
      <210> 51
      <211> 288
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (288)
      <223> n = A,T,C or G
      <400> 51
agttetntta acaggatnnn ategattena attnggentn angnntggee neeetggggt
                                                                         60
ncncaccaga agnteggana aaggeecaag gngnangeea egeecageag tggtnattge
                                                                        120
ccccactcc tittttgagt ctatnagcat tgnttggttt tagctgtcat cagaagctgt
                                                                        180
gagggaccca cagattttgg aaacgacctg gacacactat tgggaaggag atgtggacgg
                                                                        240
cctgtctcct cctgcagggc ccaccctaag aatgtatttt taaacaca
                                                                        288
      <210> 52
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 52
agaaaggata atggagtttc tgtacaagat ttaccagaaa gagagtggtg tgtagacatg
                                                                        60
cctggagcag acaccttgga gccgctgaca gaaggtgaag cagtccaaga aaatgtggaa
                                                                       120
acttttccgc tgctctacac agtccacaaa cctgtccatt ttatttcgtt gaagctttgt
                                                                       180
ctgagagata accaaataga cagtcaaagt aagttatctc agccacatat ggggagtgga
```

240

```
tgctgctgaa ttgtgattaa ttgggggagc catataggta catttggcat gatctgggcc
                                                                         300
      <210> 53
      <211> 298
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature ...
      <222> (1)...(298)
      <223> n = A, T, C or G
      <400> 53
gctactctta cgcactcacg ttcattaact gcgttctgat ggcagaaggt agacagcaac
                                                                         60
tggacaaggg tgaatttacg gagaagtacg tggtcccgcg gacaaggctg gcatccaagt
                                                                        120
teateacact etacegggeg atacgggage atggetteta egteactgae tgteeceage
                                                                        180
agcaggcaca acceetgag ggeggeggtt tgtgetgaga getatgtaag egcageetnn
                                                                        240
nnnnnnnnn nnnnnnngt tgntaccttt natcataact atggatatct aaatgcat
                                                                        298
      <210> 54
      <211> 268
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(268)
      <223> n = A, T, C or G
      <400> 54
agtecetgag aggtggtggg aatggetget teattecteg aggatgeeeg ggeeecacet
                                                                         60
gggcttgtct ttctgtttag agggaagtgt aacntatctg ccatgaggaa cataaattca
                                                                        120
tgtaangcca ttttctctta tncannncnt ntctttctan qtacantcnt tntctaqqat
                                                                        180
ttgngaaget nettgenett gnaacaggne teangtnngn gnanennttt ngnnnttnee
                                                                        240
ncnnntcntg ntgntttttt cntntnnt
                                                                        268
      <210> 55
      <211> 278
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(278)
      \langle 223 \rangle n = A,T,C or G
      <400> 55
aatgtgaaat ccacattgtt tccacaggca ccatcagtaa tgtcgaacaa atggagaaag
                                                                        60
ttgcaggtgg ggctaggaaa gctgtattcc tgtggattac tctaqctqqt catttqcccc
                                                                        120
gattgtgaac tgcttgaaag aaaaacgaaa cttctaagat gtttgtcctt tcatgtcctt
                                                                       180
tetgttggga tttettattt ggngenettn netgnntane ntnnnnetnn ttnattnggg
                                                                       240
nntectntna netnttgtnn neategnnta agttagtt
                                                                       278
      <210> 56
      <211> 254
      <212> DNA
```

```
<213> Homo sapiens
       <220>
       <221> misc_feature
       <222> (1)...(254)
       \langle 223 \rangle n = A,T,C or G
       <400> 56
ggaaattggc ctataccagg agagcggatc ccagacgtgg ctgcattgtc catgggcttc
                                                                         60
tctgtgaaag aagacctttc ttggccagga ctcgcagtgg gtaacctgtt tcatcgtcct
                                                                        120
cgggctaccg tcatggtgat ggtgaaggga gnnnnnnnn nnnntntacn cncaggcntt
                                                                        180
nnntnttnat nnccnnngtc nccttncnan tnnatnttna ntncnnnntt ngnagntatc
                                                                        240
tngtcgtnnt cctt
                                                                        254
      <210> 57
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A,T,C or G
      <400> 57
gagacatcat gtcaacagaa atggagatgt gcactgggga aactgccggc cgggccgctg
                                                                         60
gcccgtggac gcctgggagg tggccaaggc cttcatgccc cgaggactag cagacaaaca
                                                                        120
aggacetgag gaatgtgatg cagttgetet tttaagtete ateaaettet nnnnnnetn
                                                                        180
tgnngcnnat gtntacantg ccaccaacgt gnttntgtgn actcgcncan tcatggacta
                                                                        240
tetetatgat natgannntt etagganent ngnggataat actaenttnn anteettetg
                                                                        300
      <210> 58
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 58
acaaggtgct ggcagtgaag tgggggcaga ctgagcctgt gtagtgaagt gtcttgagga
                                                                        60
acgtcagctg tatcttttag gaaaccaaaa ctgcatagac attgaaccca ggcagaaggt
                                                                       120
catgaagtca gagctaagaa atgctagtgg ggataggggg tgagatagag ttgggaaatg
                                                                       180
tttcagagct acaggtgaca gttgttggtg tccagttgga tatgtaccat gaagggaaga
                                                                       240
agcagtcaga gtgggcacca agctttctag cctggaggac tgaatggttc tgtgcacatt
                                                                       300
      <210> 59
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 59
ctctcaaata gaaatgggag ataagaaata tatctgtgca atattaaatt gaaaaaaaa
                                                                        60
acccataaaa agtgtcaaag gcaaataatt tgctctagat cacaaaacta gttagcacaa
                                                                       120
ggctaggatt ataaccaggg tctaggaaaa aatcctgaag gtgatttaac tgagtgttag
                                                                       180
gccctgtcaa gccacctgct aaggctcatg gtctttcaga ctagcttcaa cattccaaat
                                                                       240
caggcaatag ctacaacgga aagataattg gacggggaat cctgagatca gagtcctagt
                                                                       300
```

```
<211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 60
aacgtgctgt acaccagcct gcccgtgctc ctcatggggc tgctcgacca ggtaggagcc
                                                                        60
tcgcacaagc agggacactt ctggacagat gagaatgcgt tagagaagtc ccaagcaaac
                                                                       120
gtttcaatgc attcttctgg tgtttacttc tttctgatca aaccctatta taattctgtt
                                                                       180
gtcaggcatc aagggtcatg gctgtgcttc ttgttttgta ataaggaaag aggatttctc
                                                                       240
tgtagtccca gctactcggg aggctgatgc aggagtatga cttgagccca ggtgttcaag
                                                                       300
      <210> 61
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 61
ctgttcctaa ccctttcaac tggggggtct caagtgggtg aggactccat ggccacggca
                                                                        60
gcagaactgt ctcttctgaa aaccagactc cggggcccct gggtcagcac ctctaggtca
                                                                       120
ttccacagac ttacacagtt taaagaaaga gccagcgaac atggggtgat cctggggtgc
                                                                       180
cactqqqatc ccaaqccagg cccggaggtc tgcctgtttc gtccccagaa acttgagctg
                                                                       240
gcatcctccg ttggtttgca ctgggcacgg ggactggaga gccaccaggc cactgagcgc
                                                                       300
      <210> 62
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 62
cetgetteca ggtetecetg tececettge etgeettett ecetgetetg tecectaage
                                                                        60
tecetecagg cagggaaaag aggecaggtg etaaaaatga geetttetea ageaegtgag
                                                                       120
                                                                       180
cageggaagg cagacaggeg ccagagecca geacteeett ttecageage tgtggtgggg
gagggttccc ctccagtttg tcaagagttg aaggaggctc tgtggccagg tgacctggct
                                                                       240
gccttccact ccttgtacct cagtctaaac atggagtggc cgctgacaag gcgctccagc
                                                                       300
      <210> 63
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1) . . . (300)
      <223> n = A, T, C or G
      <400> 63
ccccactcgg ggtatgtgaa tgcccagctg gagaaggaag tgcccatctt cacaaagcag
                                                                        60
cgcattgact tcaccccttc cgagcgcatt accagtcttg tcgtctccag caatcagctg
                                                                       120
tgcatgagcc tgggcaagga tacactgctc cgcattgact tgggcaaggc aaatgagccc
                                                                       180
aaccacgtgg agctgggacg taaggatgac gcaaaagttc acaagatgtt ccttgaccat
                                                                       240
actggctctc acctgctgat tgcctgagca gnacggangt ctttacgtga acccacttga
                                                                       300
      <210> 64
      <211> 300
      <212> DNA
      <213> Homo sapiens
```

```
<400> 64
gagttttttg tgatattgag gcattcatac agagctgcag ttagacgggg ttacgggggc
                                                                         60
taaaagcaga aaaaaaattc catttcatcg ggatggaact gaaggatttt attctataaa
                                                                        120
gcggccctgg ttgaatctgg caattctttt tgccaagatc cctagcagaa gatttagcca
                                                                        180
tgtccttccc ctcacttgtg tgagtggccc cttctgaatc tctccagcag ccagaggcac
                                                                        240
cgtgagaagc agaaagagct ggtaaataaa gccttgggca agcgacttct tagatcagaa
                                                                        300
      <210> 65
      <211> 299
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(299)
      \langle 223 \rangle n = A,T,C or G
      <400> 65
cacctgacct tggcctgcac ccccggcagc tcccccacac ttttgcgctg gttccacgae
                                                                         60
tgcctggget titgccactt gccgctgagc ccaggtgaag atcccgagct gggccttgaa
                                                                        120
atgacagcag ggtttgggct tgggggaatg agaggttaca gcnnnnnnn nggccatgan
                                                                        180
gggcananat tgnatcccac atatttgann ngngcngaga ncccttttng gggggngtaa
                                                                        240
angtacaacn angaagenet nttaggacta aggtttaana aagntgettt ttacccatt
                                                                        299
      <210> 66
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 66
atttgtacca actgtaccat ctgcttgcca ctgctccaaa cttttaccca cttgcttttg
                                                                         60
gtaaagaggt cacctgcgta tttaaaatat ccttttgtaa tgtattggga aggtgcgaga
                                                                       120
acatatgaaa atggttgtca atggagatgg aaggggcttt attctcactt aagagagccc
                                                                       180
tgggaggaat aaggttttat ctggatcagg tatccaattg cattggataa acgtggcctg
                                                                       240
aggcaggata aaatttaaaa acacaataat aagcctcctg gtgacatctc tgttcctttt
                                                                       300
      <210> 67
      <211> 297
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(297)
      <223> n = A, T, C or G
      <400> 67
tgtatcgggt cctgttccag ccggcatcgc cgggtggctt ccaggcctca gagctgtgtg
                                                                        60
gcagggcccc ctgctggggc tggacatcac tgcagtccag tgcaaagccg nnnnnnnac
                                                                       120
ccaggtgtnc cccccaacta aacnaaactg gnggcttgga agccccnncn natgggaang
                                                                       180
tncaaaaaa ggtcttggnt ttctcttcta atgcctttct taactcctga antcgtttgc
                                                                       240
tectaaatet tggtaattet ttttetetgg attttggttt ettttggett teeettg
                                                                       297
      <210> 68
      <211> 300
      <212> DNA
```

```
<213> Homo sapiens
      <400> 68
ccccactcgg ggtatgtgaa tgcccagctg gagaaggaag tgcccatctt cacaaagcag
                                                                        60
cgcattgact tcaccccttc cgagcgcatt accagtcttg tcgtctccag caatcagctg
                                                                       120
tqcatgagcc tgggcaagga tacactgctc cgcattgact tgggcaaggc aaatgagccc
                                                                       180
                                                                       240
aaccacgtgg agctgggacg taaggatgac gcaaaagttc acaagatgtt ccttgaccat
actggctctc acctgctgat tgccctgagc agcacggagg tcctctacgt gaacccactt
                                                                       300
      <210> 69
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 69
ccccactcgg ggtatgtgaa tgcccagctg gagaaggaag tgcccatctt cacaaagcag
                                                                        60
cgcattgact tcaccccttc cgagcgcatt accagtcttg tcgtctccag caatcagctg
                                                                       120
tgcatgagcc tgggcaagga tacactgctc cgcattgact tgggcaaggc aaatgagccc
                                                                       180
aaccacgtgg agctgggacg taaggatgac gcacaagttc acaagatgtt ccttgaccat
                                                                       240
actggctctc acctgctgat tgccctgagc agcacggagg tcctctacgt gaacccactt
                                                                       300
      <210> 70
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      \langle 223 \rangle n = A,T,C or G
      <400> 70
gtttgtttcc ccgagatgtg aacttgctga aggaaaacag tgtaaagagg aaggccatac
                                                                        60
agagaactgt cagctcttca ggatgtgaag gcaagaggaa tgaagacaag gaagcagtga
                                                                       120
gcatgttggt taactgccct gcctactaca gtgtgtctgc tcccaaggct gagctactga
                                                                       180
acaaaatcaa agagatqcca nnnnnnnnn nntgaggaag aggaacaggc anatgtcaat
                                                                       240
                                                                       300
qaaaaqaaqq ctqatctcat tqqaaqtctc acccacaagc tggagaccct ccaggaggcg
      <210> 71
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 71
tcaggccgct gggtgacggt gtgctggcca gatagttcct ggggctgcag gtggcttctt
                                                                        60
                                                                       120
tegececate ceteceatee cettteatte tteetgteaa cacateteag accetggaca
ccgaatgagc cqtcqqtacc cacacccag ggcaattcag tggaggggta ggtggctcgt
                                                                       180
tececeacgt tgccccagga agaggaccet gtccccggca tectgaccea cetecettag
                                                                       240
agaccgagag cctctaagga taaacccatt cacccgtgtt tcagaggctt tttttcctc
                                                                       300
      <210> 72
      <211> 300
      <212> DNA
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<213> Homo sapiens

<400> 72

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gttcagggtt ggtgggtctg tggaccttga gctagttttt aatcaacatg gaaactccag
                                                                        60
tgatctattt aaaaacttgc attgggtcat gccaggttta ttggaggtta taccctccaa
                                                                       120
tgtatttcca actcagggtt aaagccaagg tccttatggt ggaagatggg gcatataaac
                                                                       180
tggcattctg gcgctcacac actccaatat ctactactct cccctcttgc tcgctcagct
                                                                       240
gtggcttgct tattcagctt tttgctcttc ctggaataca tcaaacatat gtaggcccag
                                                                       300
      <210> 73
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 73
ctttgaagag aggagggga ctttagagag ggatgaaaat gagccctggg agggaggaag
                                                                        60
ggacgaggag gggtggctgc atgttaccgt cccctacctc tccccacgtg gagggtggag
                                                                       120
cagttatgag ggaggaagtc aactgctgtt cagcctcaga ataaaggtgc cgttcactqq
                                                                       180
ctcagttacc tectgtgtac eggcatettg tgttgggaat gttececet cectagggac
                                                                       240
caaggaccac ccctacaaaa agagtaatgg ttgggtgata ctccctcaag ccaaaqaqqa
                                                                       300
      <210> 74
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A,T,C or G
      <400> 74
gggattaaca atgctgaagg actcttagta gtagtgactg tcatctgtgc ccctctaact
                                                                        60
ttcctgagcc tcacacaca cctgtgggca ggatggagta gatcatgttg ctgactgctg
                                                                       120
ccgtaggcaa gtaaatggag ccagaaagtc ccactgttga cagggtgcca cagctgacca
                                                                       180
gggactgtca ttctctccac ccacaggctg tggagggtga ccacagcatg tgcccacctc
                                                                       240
caccaatccg caacgagcag coggnactgg tgctgnggca gaggntgccg tcattgccca
                                                                       300
      <210> 75
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 75
tgggggctct gaagtttcac caggtggacg ctggggagcg ggctcccgag cacttgtcta
                                                                       60
ectecegeca gteetgacaa ettttetgge caacetacee agettegett ggetggegag
                                                                       120
cgcatctgct gctggggttc gcggtgcaga tggagacgca gtggtggcca gagggtgatg
                                                                      180
gagaagacgg gaaaagcgac agccacgctc ctggctgaag ccgcaggacg caaataactt
                                                                      240
actitgtacc tgacagtitc tcacgtigtt gtggaggccc tgtttcctgg aaataaactc
                                                                      300
      <210> 76
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 76
gcagggcagg gctaaagttg gaaatggaaa tgaaggagca ggtagccatg cagccttgtg
                                                                       60
ctttccagca acagggtgga cacttggtcc caagaggacg cagctgaaag accctctggc
                                                                      120
agggagaacg tgtgaggact ctgtggtgga ttctgagttg tgcctctctg gcttaatctc
                                                                      180
```

```
atctgattct agcagtaact ccaagaggta agcacatttg tgagtcctgt tttccaatgg
                                                                        240
aaaagctaca tgaggcccac caggtcccag aactcaacaa tggtggggct ggggttcaaa
                                                                        300
      <210> 77
      <211> 296
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(296)
      <223> n = A, T, C \text{ or } G
      <400> 77
aaaggaccta agtgtgaaat accccgaaga cgtccccatc acccttccaa acctgttgag
                                                                         60
gttcattttg catcactcag accetgette cagececcag aatgtggeta actetectae
                                                                        120
caaggagtgt cttcagagcg aggcagtctt acagcggggg cacatctccc acttggagag
                                                                        180
agagatecag aaactgagag cagaaataag cageetecag egageacaag tgeaggtgga
                                                                        240
gtcccagntc tccagtgccc gcntanntgn ntacnttgnt ngtngtngnt gatttt
                                                                        296
      <210> 78
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 78
tgaaaaaaat cacagctcct gcagcaagtc tatgcctggg taacaaccaa cccacaaaat
                                                                         60
ccaagaggag gteecectet eccqcetetq tgaggettga ggagcagtat gtatetggge
                                                                        120
cagectggte ctcagagtgt ggaattaaca cettteetet ageaactgtt tgtgetgetg
                                                                        180
agaacagcac agactetetg geageetggt teteteeaga gggaageetg tgaageagaa
                                                                        240
gaaacatatg gcatctgcac tcagggcgcc cagttccatc cggccttgct ataaaatgac
                                                                        300
      <210> 79
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 79
caaaaagctg ctgctgggca gccccagctc gctgagcccc ttctctaagc gcatcaagct
                                                                        60
cgagaaggag ttcgacctgc ccccggccgc gatgcccaac acggagaacg tgtactcgca
                                                                        120
gtggctcgcc ggctacgcgg cctccaggca gctcaaagan cccttcctta gcttcggaga
                                                                        180
ctccagacaa tegeettttg ecteetegte ggageaegee ecatattagt ggteegggee
                                                                       240
egggeaggee cageteaaaa gagggeagae geagegaeae ttgttettae acacecceat
                                                                       300
      <210> 80
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 80
ctcccagcct cctcctccaa cgcccttttg atccaagatt gagtaagaga cattggcaga
                                                                        60
```

```
tgctgagaag gacaacccaa ttgttttaac ttgcagaccg agggggagat gggttccagt
                                                                        120
 ctgcacatga ctcgtgcaca gtcccccac cccaccctga cttagaaaat tccaaaccga
                                                                        180
 ctacaagacc agaaacaaac cacatgccag tcgcccctt gtctgtacac acatgtggag
                                                                        240
 ttcagagcca cccttggaga gaggctgctc aggctcagct ccctgtgctg ggctttctag
                                                                        300
       <210> 81
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 81
acatagcece caccectgag ggatgagaca geteectgea ggeaggetgt geceagteat
                                                                         60
 ctcaagccta cagctgggct gctggctgca gggtctggag ggcggtgggg agggtggcag
                                                                        120
acagagtage aagaccccca ettecetgge ettetteaca gacetgegte atgegggeet
                                                                        180
gggaccgcag caagcccctg ctcttctgcc cggccatgaa caccgccatg tgggagcacc
                                                                        240
cgatcacage gcagcaggta gaccagetca aggeetttgg ctatgtegag atcecetgtg
                                                                       300
      <210> 82
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 82
ggaagaggat gactgggtat gctgtgccac ccttgagggc catgaatcca ctgtgtggag
                                                                        60
cttgggcttt gacccgagtg gccagcgcct ggcgtcttgt agtgatgacc gtactgtgcg
                                                                       120
tatctggcgt cagtatctac caggcaatga acaaggggtg gcatgcagcg gctctgaccc
                                                                       180
cagttggaaa tgtatctgta ctttgtccgg cttccactca aggaccattt atgacattgc
                                                                       240
ttggtgtcag ctgacagggg ctctggccac agcttgtggg gatgacgcga tccgcgtgtt
                                                                       300
      <210> 83
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A,T,C or G
      <400> 83
cagagetgta tetteagtgg tgtgatgaag etacagtagg ggagateaet catgetaggt
                                                                        60
atggatetee ttaccettgg cetetgaate atattttgge etateaaaaa cagtggnnnn
                                                                       120
nnnnnnnnn nngtaaaaa attttnggng gggggagaaa aaatcnggac ccggtgttan
                                                                       180
aggatgtaga ccagtgctgt caagctctct ctcaaagact gggaacacaa ccgtatttct
                                                                       240
tcaataagca gcctactgaa cttgacgcac tggtatttgg ccatctatac accattctta
                                                                       300
      <210> 84
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 84
gtcctaccca aacctgtggc cgccactttt gaattctcag attgccctga attttgccac
                                                                       60
ttttaaataa tgtgctgaat aagctcagca actaaaaacc attacccaag aacgtttctt
                                                                      120
gtgagtgagc tgatttattc tgattcatta tattcctttt ggtagatttt ataccccttg
                                                                      180
gggaaataat acaacaaaaa catctcttaa aaatgctggg atggggccat atctactagc
```

240

```
agaggccaga tggtcagata tgatttctgc aaacccatct tgaccttgag tatgtgaagg
                                                                        300
      <210> 85
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 85
tggtgcccat attgatgtgg atanacagaa agataagaat ggcgagagaa tgatcacaat
                                                                         60
aaggggtgge ccagaatcac caagatatge agttcaacta atcaatgcac tcattcaaga
                                                                        120
tcctgctaag gaactggaag acttgattcc taaaaatcat atcagaacac ctgccagcac
                                                                        180
caaatcaatt catgctaact tctcatctgg agtaggtacc ccagcagctt ccagtaaaaa
                                                                        240
tgcatttcct ttgggtgctc caactcttgt aacttcacag gcaacaacgt tatttacgtc
                                                                        300
      <210> 86
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      \langle 223 \rangle n = A,T,C or G
      <400> 86
quattecatt accanatget actngetett tgttgettta tenenangee ategattega
                                                                         60
atnnaggacg agneganngg tategneann gatngntntn ntnegetent gacceatang
                                                                        120
ettngnatng ggatnnagng acagtntent gnnaaacate tatnaenntn atganggeta
                                                                        180
tcnntttaat gatnttgaga atnatgacng gcttgatgac tanaacaatg cngaagatna
                                                                        240
negecactga tggtggnaca tactteecte ttttactact egectnacaa teacaatetg
                                                                        300
      <210> 87
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 87
gtgcgctgtc caggaatgac gtgctgaagc aggaggtgcc agagggcttt ccctttgccc
                                                                        60
atgteetttg ggeaggatgt ggatgeaget gteggggeag etetggteat geteeggaga
                                                                        120
cacctcaacc agaaggaatc ttagacagca aactctttcg ccaaacgact gctgtgaatt
                                                                        180
ttacctgatt aacattcctg acaccatctg tgggtcatcc tttccctgga ccgttcagtg
                                                                       240
gacagettte aageagtget tgttgtgagg teecatettg gecaagaaet taeetteaga
                                                                       300
      <210> 88
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 88
ccaaggagtt ttccaccegt ctctcatggt cacagcgcta gtcattcatt tttgagaagt
                                                                        60
tgcttctttt acatcagaaa accagtcaat catatggaga cttcttttgt gatgaaaaag
                                                                       120
```

```
ggctttagaa gttaaataca tgcatgcaca tgaaaacatg cacaaccaca gcctcaatct
                                                                         180
 tgtatttagt ttggggaaag agaagagaat ttcctgtgga ttatttttc ctcaagtgca
                                                                         240
 cctctctggt taacccaaac tctgcaagaa agcactgtga ctaaaacata cataacgcct
                                                                         300
       <210> 89
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 89
 agaaatcgga acaaaagtag aagttgtgga aaggaaagaa catttgcata ctgacatttt
                                                                         60
 aaaacgtggc tctgaaatgg acaacaactg ctcaccaacc aggaaagact tcactgaaga
                                                                        120
 taccatccca cgaacacaga tagaaagaag gaaaacaagc ctgtattttt ccagcaaata
                                                                        180
 taacaaagaa getettagee eeccaegaeg taaageettt aagaaatgga caeeteeteg
                                                                        240
 gtcacctttt aatctcgttc aagaaacact ttttcatgat ccatggaagc ttctcatcgc
                                                                        300
       <210> 90
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 90
 ttgattgtca taacaattag tggatgtgtc cagttctctg tatctttgac ttgatgcttt
                                                                         60
 atacatcatt tcatttgttg cttctaaggg aataagccat agaggcttct ccaggtttaa
                                                                        120
 aagaacagta aagtacctgg aaaaccaaca tttttgaatg tatggacact ggacatgaga
                                                                        180
 tatgtacaat gaaatcttaa aagaatctaa gaatttgccc tctttgcccc actccaccca
                                                                        240
gtaatttgac attactagtg ccatgtatag gacccaactg agtattagaa tcagttttga
                                                                        300
       <210> 91
       <211> 267
       <212> DNA
       <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(267)
      <223> n = A, T, C or G
      <400> 91
ataggaaagg gaagcccatt tcccaggtca aagcctttgc ttactcgttt atgtttattt
                                                                        60
tatttttgag acagagtcta gctttgttgc ccaggctgga gttgcaggtg caatctcggc
                                                                       120
tcattgcaac ctccgccttt tggattcgtg cagttctcct gcctcagcct ccaagtggtg
                                                                       180
gggatcgcag gcacacgcca ccatgcctgg ctaatttttg nnnnnttann ggctgncncn
                                                                       240
gngaancetn nnntntnetn nnnntne
                                                                       267
      <210> 92
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 92
aaaaattgtg atgtaagtgg tacagtgggg agaatttagg gctctcagaa tgcagaaaac
                                                                        60
tagccacctc cagttctgtg cctgaccacc atctgacttt ggataaatcc cttctgctct
                                                                       120
cccacctage tttatcattt gtaaaatgag tctctaggta cagccctttc tgggttgaga
                                                                       180
cagagtttct gaggagtaaa agccatgtca ttgtggaaac aggcagctat tctcacagct
                                                                       240
ggcatgagcc cactactccc ctataatcag tgctgataaa ctgctctcat ttgttggact
                                                                       300
```

```
<210> 93
      <211> 277
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(277)
      <223> n = A,T,C or G
      <400> 93
agtgtatcca gatctaagta atctcagtga actatacatt gcctaaaaaag tggttttgta
                                                                        60
atgatttgta gtcacatttc tattgggata tgtnnnnnn aaggcgaaat gcttaaagtt
                                                                        120
ccttttattt tttaaaagca gntagataga cacagacttg ccacctnata catctgctcc
                                                                        180
ttggcaacat cnnggggaac nnactageen acatgcetat ggctaaaaac tttnetttge
                                                                        240
nnactanege netgnttggn gettengntt ntannnt
                                                                       277
      <210> 94
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 94
atteggeacg ancecaatee etgggegeee etggtateea aagggeeeag ggaeeetgtt
                                                                        60
gegetgeect ggeeteggea ttegaggete ceetagggee gtgeetgtge gtgtgegtgt
                                                                       120
gegtgtgtgt gtgtgtac tgcatgccca ceegggtage aagetggtgg acagatetge
                                                                       180
tetgtggagg ggegggeace agntecaett atgtgeetgt geteegaggg ceaatggget
                                                                       240
gcagggcctg cttggaggaa ggatttgtgt gtaggaggcc tctccgaggg caattctgtt
                                                                       300
      <210> 95
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 95
aaaacctgct gtcaaggctt gaagagccgg cacactcaat ggcaaacaca gcaccgagtc
                                                                       60
tgctctgaat cctggaggat ctggccctcc tctcaacccc cactcacagt caccgtctta
                                                                       120
caactcaggg ccacctggga tcagtcatca gtcagggtgc gtaagccttg aataccaggt
                                                                       180
agcctcagga gtgaaaagat aaatgtccta gatcattacc ttattcagtg tccccacctt
                                                                       240
geagegeatt ceaaceacet gggageattt aaaacteeag atgeeeacae cacaecetgg
                                                                       300
      <210> 96
      <211> 283
      <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc_feature
     <222> (1)...(283)
     <223> n = A, T, C or G
```

```
<400> 96
 gtaacctgac acccagggag ggagggaggg aggggctgnn nnnnnnnnc ctgnanngng
                                                                          60
 ggnctcacct gttctnnntt nttnttnttt tnnntntang ntcacnntng ttancatnnt
                                                                         120
 ttntancttg nntttatttn tntttntttt ntnanctttn tttntnttgt tntnnttctt
                                                                         180
 tttttncntt tattttgnn ttctnccntn ntntttntgg tttttanttn ntntttnttt
                                                                        240
 ttttnttttn tntttnnntt ngnttctntt ntntgtcttc ttt
                                                                        283
       <210> 97
       <211> 277
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc_feature
       <222> (1)...(277)
       <223> n = A,T,C or G
       <400> 97
 gtttcacatt tgctgccatg agcaaagagg aggtcgacag gtacaatttt gtgatgctgg
                                                                         60
 ccctgtcctc ctcattcctg gtgttatcct atctcttgac ccgttggtgt ggcagcgtgg
                                                                        120
 gcttcatctt ggccaactgc tttaacatgg gcattcggat cacgcagagc ctttgcttca
                                                                        180
 tecacegeta etacegaagg ageeeceaca ggeeeetgge tggeetgeae etategnnnn
                                                                        240
 nnnngnnegg gacatttgcc ctcagtggtg tggttnc
                                                                        277
       <210> 98
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 98
aagactttgg aaacacacat taaaatattt catgctccga acgccagcgc accaagtagc
                                                                        60
agcctcagca ctttcaaaga taaaaacaaa aatgatggcc ttaaacctaa gcaggctgac
                                                                       120
agtgtagage aagetgttta ttaetgtaag aagtgeaett aeegagatee tetttatgaa
                                                                       180
atagttagga agcacattta cagggaacat tttcagcatg tggcagcacc ttacatagca
                                                                       240
aaggcaggag aaaaatcact caatggggag teeeettagg etegaatgee egagaagaga
                                                                       300
      <210> 99
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 99
gctagactca agctgtctgg agagtgtgaa acaaaagtgt gtgaagagtt gtaactgtgt
                                                                        60
gactgagett gatggccaag ttgaaaatet teatttggat etgtgetgee ttgetggtaa
                                                                       120
ccaggaagac cttagtaagg actctctagg tcctaccaaa tcaagcaaaa ttgaaggagc
                                                                       180
tggtaccagt atctcagage ctccgtctcc tatcagtccg tatgcttcag aaagctgtgg
                                                                       240
aacgctacct cttcctttga gaccttgtgg agaagggtct gaaatggtag gcaaagagaa
                                                                       300
      <210> 100
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 100
aagtootatg aagotttggt acagcatgto atcgaagaco atgaacgtat aggotatcag
                                                                        60
gtcactgcca tgattgggca cacaaatgta gtggttcccc gatccaaacc cttgatgcta
                                                                       120
```

```
attqctccca aacctcaaqa caaqaaqagc atgggactcc caccaaggat cggttccctt
                                                                       180
gcttctggaa atgtccggtc tttaccatca cagcagatgg tgaatcgact ctcaatacca
                                                                       240
aagcctaact taaattctac aggagtcaac atgatgtcca gtgttctgta taaaatgcaa
                                                                       300
      <210> 101
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 101
atgttgccca ggctggtctc aaactcttga cctcaagcaa tactcctgcc ttggcctccc
                                                                        60
aaagtgctgg gataataggc atgagccatc atgcctggcc gaacttattt ttaaattctt
                                                                       120
tgggaatcta aaaggactat gtgctttctt ttttactgga ttatgtgaga agataatagt
                                                                       180
ttgcagagaa attcagtgaa gcagctgata aaatgcttta aaaatatatt tcagagaatt
                                                                       240
gagcaataac agtgatgtca aaatagtagc cccaccttct ccagcccacc taaaccaaca
                                                                       300
      <210> 102
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 102
gatgcaaggg ctgaagctga aacttcagag agcatcggca tttaaggaag aaccttggct
                                                                        60
                                                                       120
gggcgtggtg gctcacgcct gtaatcccag cactttggga ggctgaggcg ggcggattgc
ttgagcccag gagtttgaga ccagctggcc aacgtggtga aaccccgtct ctactaaaaa
                                                                       180
tacataaatt agetgggegg tagtggcatg tgeetgtaat eecagetact egggaggetg
                                                                       240
agagaggaga atcacttgat tctcctggga ggcagaggtt gtggtagctg agatcgtgcc
                                                                       300
      <210> 103
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 103
attttagtgg ttttacagtc atttttcatt taatatttac agaagtccta tgaaataatg
                                                                        60
actgtgatta gatactgtta ttattaagga aactgagcct tagagaggtt aggtaacttg
                                                                       120
tctaaggtag agctatgata caaacccggg tctcattggt tgggcatttg tgtcagtcac
                                                                       180
tgagtataag gtaactggga caaggagete aageageteg tegtttagta teagagaeag
                                                                       240
agageteagg ecatggeece actatgaaca aagtggtett aggacacaga aaaagagtga
                                                                       300
      <210> 104
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 104
gcctgtagtc ccagctgctc gggaggctga ggcaggagaa ttgcttgggc ccgggaggcg
                                                                        60
gtggttgcag tgagccgagg ttgcgccact gcactccagc ctgagcaaca gagcgagact
                                                                      120
etgteteaaa caaaaaccaa aagacatcag gaaacatgee tettatggaa tttgaggggg
                                                                      180
aaaagtcagg gtcttggcag tgaccttgga caagccatta gcctcttgat acctcttttc
                                                                      240
tcatctgtaa aatgaaggtg gtagttacct acttcacagg gttattaggg gattcaatgt
                                                                      300
      <210> 105
      <211> 300
      <212> DNA
      <213> Homo sapiens
```

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<400> 105
 cagaggettt getagtatee tteaaceaat ttetagtaaa aatateetat ataaceataa
                                                                          60
ttatcaaaac cagaaaaaca acattggtag gatactataa agtactaatc ttattttgga
                                                                         120
tttgacgaat ttttacatgt tttttcttt tttagtttgt actctaagaa gttgtattac
                                                                         180
atgtacagat tegtgtaacc actgcaacca cataaaacta atgaacacaa agteeetcat
                                                                         240
gctacctttt tatgcttaca ctccatccaa acctaactct gccaaccact tttctcctat
                                                                         300
       <210> 106
       <211> 287
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc feature
      <222> (1)...(287)
      \langle 223 \rangle n = A,T,C or G
      <400> 106
acctgageta gggttgcage agaaattgag ttgcagettg cccttgtcca gacctatttt
                                                                          60
ctgcttgcgt ttttgaaaca ggaggtgcac gtaccaccca attatctatg gcagcatgca
                                                                         120
tgtataggcc gaactattat cagctctgat gtttnnnnnn nnnnnnnna taatgcgana
                                                                         180
gangecatea enninciati gigietnaan intngeenig ngniaticea ignenienin
                                                                         240
ntatnnanct ntacnaatan gttttacgtn atncnnttcg atttttg
                                                                         287
      <210> 107
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 107
ccctggatga aaacctaggc agtaccattc aggacatagg catgggcaaa tacttcatga
                                                                         60
ctaaaacacc aaaagcaatg tcaacaaaag ccaaaattga caaatgggat ctaactaaac
                                                                        120
taaagaactt gtgtgcagtt ttatttggga gtgtgtgtgg ggtacctctg agtttcaaaa
                                                                        180
atgaagaaag taagtagtca tgctttcctg actctttggt agacatagcc tttaagacag
                                                                        240
tcattctgag ctgttatggt cttagggttc cctatactac taaaacttat tgatgacatg
                                                                        300
      <210> 108
      <211> 285
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(285)
      <223> n = A, T, C \text{ or } G
      <400> 108
atgcccntag tacgcaacaa ntccttcntg ctccaagagt aggaaaatta ctgttctntn
                                                                         60
tgccagtgag attcctcttc tggtattacc tttgcttcaa agtccctgaa ttgcccattc
                                                                        120
eccaetteat ageaettatt getatetgga attacaetaa atgteaeett catgatggta
                                                                        180
ggcaatttat tgccttagtc acagttatgt ctagagaaca agcagctggc tcatagtagg
                                                                        240
cactcaacaa atatttgttc aatgaatgaa tttataaatg aatgc
                                                                        285
      <210> 109
      <211> 300
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<212> DNA

<213> Homo sapiens <400> 109 aattgtaact tattccagga taaatgtcat atgcatatga ttttcatatg actttgatga 60 gtatcttcag ggaaaattcc taaaaatgaa attgctggat taaggggtaa atgcatgtat 120 agttttgtta gacagggcca cataccette ettagaggta gtaccetttt gtatteetge 180 cagtaatata tgagagtcca cagagtatgt ggttaagctt tagaatgctt gtccatctga 240 tagggaagaa atcgtgttgc cttaatttgc ccttctttta ttatgaatca gattttaatc 300 <210> 110 <211> 300 <212> DNA <213> Homo sapiens <400> 110 cagocaatag ccatgtaact gagottggaa gaggatottg otgtootggo caacatotoa 60 etgeaattet ateagttgaa tteeetggat agteeaaget ttgtggatee eteeaeeaga 120 acaactggat cccagtacct gaatcctgaa tcttagactc ttatacttca aacactgatc 180 240 taaatgtttg ttgtgttaag ctgccaacct ttggcggggg ggtattcgtc acaggcaaca 300 <210> 111 <211> 300 <212> DNA <213> Homo sapiens <400> 111 aagcaacttc ttgcctcttc tcaatataga attcaaagat ttgagaggtt ctgcaagctt 60 tttcctgaaa ccaagtacct ctggtgacag tttacaaagt ggaagcattc cattggcaaa 120 tgaatcettg gagcacaaac ctgtatccag tttagcagaa cctgacttga tcaactttat 180 ggacttccca aaacataacc agatcataac tgaagaaaca ggctctgcag ttgaaccaag 240 tgatgaaata aagagagcca gtggagatgt ccaaactatg aaaatttcat ctgtgcctaa 300 <210> 112 <211> 300 <212> DNA <213> Homo sapiens <400> 112 ggccggttat tetetettta cagatageta tagacateat tttaggaagt gttgcagtet 60 ggcatttgtg ctattgttca ttctctgtga aggctgttca tagttgctat agcctgtgtt 120 tagttttgtg atttcatcaa tcccatcttt ctgagtgatt aatgcattct aaacatccta 180 ccccacttta taaacqqacq tqqqqaacqc ttqqtcattt aaqccaacaa taaatttatq 240 ggaatgtccc taagtgttta ctgtctttat ccagtcaagg atttgctttt ccttgaacat 300 <210> 113 <211> 300 <212> DNA <213> Homo sapiens <400> 113 gacttgaaaa aaagtcacat ccagcaaatg cagggtcaca tgaaatatgg gcctcctgga 60 atcoctacag tggatggaga ctggctcata cottgccaga tocotototo agttccageo 120

180

240

300

ttctggacaa ggcctgggct aagaggagct gattcgttat ctcttcaccc actgcctct

cagtatcacc agteccaaag acaggatacg tecetgtaac ecaatetete ggttgattga

tagcagaaca gctcttgttg gtctgagaag gcaggataag tgaccacata tttatgccac

```
<210> 114
       <211> 291
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc feature
       <222> (1)...(291)
       <223> n = A,T,C or G
       <400> 114
ggggggnnaa aaaannnatt tnannnnttt ttttncaaan nanagggggn tntngntttt
                                                                         60
 tnnattaaaa nnnccggggn nnnnccatnn ngttttttt aaaaannntg gnaannctnn
                                                                        120
ggngtngggg cccctnaant gttttnaaag acncccctt ccaaattttg aaaacattgt
                                                                        180
aattggagaa gaaggtanct ctgcaaggtt aatctgtcat tctcaatttg ccttattgtc
                                                                        240
ttgtttatta agatgttgga aaagcaggag gtagctgtgc ctcaattatt g
                                                                        291
       <210> 115
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 115
aaacagaatc cettttteet ttttttgtta aaagtactca teectaatat tacattgtte
                                                                         60
tggaaggact gaaaataaca gaactcagca ccatgatcgg accgggacaa tcagattatt
                                                                        120
tcattcctca gcaaacggag atcgatccga aaagtggaaa tatgagctct tctttggtgt
                                                                        180
tggcatatgg accetgagag aaagaacttt aattttttet ettggaetge aataaagtat
                                                                       240
agctgcctaa aatacgtttc ctgacacttg gaggtttgtc cacaatcggg aaaaaaggca
                                                                       300
      <210> 116
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 116
aacagaatcc ctttttcctt tttttgttaa aagtactcat ccctaatatt acattgttct
                                                                        60
ggaaggactg aaaataacag aactcagcac catgatcgga ccgggacaat cagattattt
                                                                       120
cattecteag caaacggaga tegateegaa aagtggaaat atgagetett etttggtgtt
                                                                       180
ggcatatgga ccctgagaga aagaacttta attttttctc ttggactgca ataaagtata
                                                                       240
gctgcctaaa atacgtttcc tgacacttgg aggtttgtcc acaatcggtg aaataaaggc
                                                                       300
      <210> 117
      <211> 298
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(298)
      <223> n = A, T, C or G
      <400> 117
caaaggccct ggggctcctt ctagctggag gaatgcaagg ctagcttgtc tggagcactg
                                                                       60
agaggatggc ctgaactgag tggagagaga cagaccagga ccaaaccatg cagaggtcaa
                                                                       120
gggccacatt caccttttca gagtgactca atcaaatttg tagtttgtaa aagtatttta
                                                                       180
acagetetge ggcaaagtge aaatgaaaag tettgatgge atggactgga geggggacag
```

240 -

```
tggggatgga gaaaggggaa tggattggtn gnnnnnnnn nggtanatnc atgtgaac
                                                                     298
      <210> 118
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 118
cccgctgagt ggcagtggca ggaagtcggt ggaagcagat ccctgtgcag aagttgaatt
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accagggcgg ccacacacgg gctgcacaac ctttgcagtc gtgcacggca agtgggatgt
                                                                     120
ggcctccgcc catgattggg cacctggtca ggctgggaga tccaaatagc acccagtggg
                                                                     180
cagctgtccg acccctggag gggcaagcca ggaaagaaac ttagggcccg ctgtgaccag
                                                                     240
atgtecetee cagttgggaa gactaaactg gtttggecaa tateteecag gatteecetg
                                                                     300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 119
gaaagcagat gtagtagaca totactqttt ttgcctaaac agaatccctt tttccttttt
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ttgttaaaag tactcatccc taatattaca ttgttctgga aggactgaaa ataacagaac
                                                                     120
tragraceat gateggaceg ggacaateag attattteat teeteageaa aeggagateg
                                                                     180
atccgaaaag tggaaatatg agctcttctt tggtgttggc atatggaccc tgagacnaaa
                                                                     240
gaaccttaat tttttctctt ggactgcaat aaagtatagc tgcctaaaat acgtttcctg
                                                                     300
      <210> 120
      <211> 300
      <212> DNA
     <213> Homo sapiens
      <400> 120
60
agggtaggag gcatttacaa ctcagatttt atttattttg aaattatcaa ttgtataaat
                                                                    120
ctaatttatt accaaatagg gtcttttaaa aaatattttt atcgttgaaa ccttgacagg
                                                                    180
tacttcatat tettetaata atttaaacag tecaataatg tggtatacae tttgacatee
                                                                    240
aagaactcac caagatgttt ttcagagatt tattctcgat ttaactatca tagcatttaa
                                                                    300
     <210> 121
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 121
ggagaactgc tcactccttt tccctcccca tacaaactca aagtcccctg ggccccaatt
                                                                     60
cagagitate tittititeg cacatactae aaaggcagie cetcageeet teeetgaate
                                                                    120
catggaggtg ttctgtttgg ggctttttag actgctgctg ctcagctggt tgcttgaact
                                                                    180
gacagtagge cageetgtte tetgecatte cetagteate etgtgeetea ceacagettg
                                                                    240
cttagagcaa gccttttctc aqaccttagg cacagcctct cctctttacc tgatcaatgt
                                                                    300
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<210> 122

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<211> 300
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc feature
       <222> (1)...(300)
       <223> n = A, T, C or G
       <400> 122
ctttagaaca tatcactact aagtatcagc ttatcttcag aacattacaa cattcaccgt
                                                                         60
gttcatatgc tttctgagaa gtcaccactt gtaatttcag atcacataca cctgaaggca
                                                                        120
ttttatagtt cctaaagtta acatgttaga tcttttttt ccaccccatg agggtctcac
                                                                        180
teteacecag getggaatgn nnnnnnntga ttgtageaca etttggeeac caacteetgg
                                                                        240
gctcaagtga tcctcctgct ttggcctcct ctgagaagct gggattactg gggcacacca
                                                                        300
      <210> 123
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 123
cacctttect ccagttteca ataacacatt cctcttttec acctgagace tcaccagaat
                                                                        60
caccittaat gictatatic ctaccaatag tctttttaag gcaatatagg ctttctctaa
                                                                       120
catgcacttc aaacttcaag atggaggga tgccatacaa caggactatg tgatggtttt
                                                                       180
tggctgtgtc cataggaagt cacaacaggc aagggaaaga aaccagaacc cagtcatgga
                                                                       240
gttaagaagt gagtcagaga gtagatgggt agggacagtg aggtaaggcc tctttctaag
                                                                       300
      <210> 124
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 124
ggaactatgc ccctcccact cccatcattg ccaattaagt ctttttccct taaaaatcaq
                                                                        60
ctaaacatct ttccccttga tcccttagtt atgtactctc attcttcgtg tactccatgt
                                                                       120
gattcaatag cacagatact tcagtagcac ttaccataat tgccatgaaa taattgtgta
                                                                       180
gtttgcttaa tatttgtttc tcatattaga atgtaagctc catgagagct aggatcatgt
                                                                       240
ctgatttctt tgccattgta ttgcagtgcc taaaacaata ttttacaaat ttaagtaatt
                                                                       300
      <210> 125
      <211> 276
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(276)
      <223> n = A, T, C or G
      <400> 125
accatttctg tacaacacaa gctggccttg gcagtttcgg tgcatagaaa atcaggtcct
                                                                       60
acagetegag agggeagage caeagteeet ggaeggegtg gaetgaggee ggateettee
                                                                      120
tggaggcetn nnnnnnngg ggaccccagn anctcatcat cancattgct ggagccaagg
                                                                      180
agtctgntac ccacgtnnnn tngnggatgc ccgatgncng ntttggtntt nttgacntgt
                                                                      240
tnntgntnaa ntnnttnnng nttctantnn tctgat
                                                                      276
```

```
<210> 126
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 126
cctggcagtg ttgtcagctc aacctggtgg gttcagttct gtcctgaggc ttctgctctc
                                                                        60
attcatttag tgctacgctg cacagttcta cactgtcaag ggaaaaggga gactaatgag
                                                                       120
gettaaetea aaaeetggge atggttttgg ttgeeattee ataggttttgg agagetetag
                                                                       180
atctcttttg tgctgggttc agtggctctt caggggacag gaaatgcctg tgtctggcca
                                                                       240
gtgtggttet ggagetttgg ggtaacagca ggatecatca gttagtaggg tgcatgtcag
                                                                       300
      <210> 127
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 127
cataatcgca aagtggaaca tqaaqctcta ggcagtagtc tcctgactgg cccagaggga
                                                                        60
cttttggcca aagaacgaga gaacttaaag cgattaaaat gtctgcgacg ataccgccag
                                                                       120
cgctatggag tggaagcctt actgcatagg cagttgaagg aacggagaat gctggccaca
                                                                       180
gatggtgctg cccaacaggc ccataccact cgttccagtc agaggtgctt ggcctttgtg
                                                                       240
gatgatgttc gttgttccaa tcagtctctt ccaatgacca gacactgcct tacccatatt
                                                                       300
      <210> 128
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 128
aggtgcatag agttttgcct ataatcccaa cactttggga ggctgagatg gggagatcgc
                                                                        60
ttaaggccag gagttcgagg ccagcctagg caacatagca agacccccat ctctattaaa
                                                                       120
acaaacaaac aaacaaaatg ttaaataaag gaagcagatg agtatgtgct aactaggctg
                                                                       180
gcatgtgtct ttgttggtga catggagcct ctgtcatccc ctcacagact gcatacgagg
                                                                       240
attggttcat caccetetae aacgtgetgt acaccageet geeegtgete etcatgggge
                                                                       300
      <210> 129
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 129
gacccaggta gaccagctca agagttcatg ttctttgtca tcctcctgtg agctctctgt
                                                                        60
aagtetettt ettgeecate accaeatece tagtactggg tateagtetg gecaettgge
                                                                       120
tttctggttt gccccaatgt ggtctattct tgatgcagct accaaagtaa tgttttaaaa
                                                                       180
ccattatacc aagttactat ccttqtcaaa acccccagta actgccaatc tcacttagaa
                                                                       240
taaaatccgg actcctqtga agcacaqcat aaactggcca ctgcctatgc agcaacctca
                                                                       300
      <210> 130
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
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<223> n = A, T, C or G
       <400> 130
gtcgaatgaa tcctttgtcg cctttagctt ttagtccttt gaagagaggt gagagtggaa
                                                                         60
atcaagagat tttttccac ggggaagttc tttttacaaa gcgttgattt ctcggcaccc
                                                                        120
cgcggggcgg gcaactgaca cggcctccgg tgcaccttct gcgctgtgga gcctctgggg
                                                                        180
ctcagctgnn nnnnnntcgg gtcgtgnggc ggtagggcgg gagcggngga agggaaaagc
                                                                        240
naangetgga aaagaageag ggeagttgng aaccagacat ceagacetee tgaagggete
                                                                        300
       <210> 131
       <211> 300
       <212> DNA
      <213> Homo sapiens
      <400> 131
ctggactctg agtcgtcttg gtcccaggag ccagtagtga aggcaacagt ctgcccacct
                                                                        60
gtggacacca gatcctggga gctcctggtt agcaagtgag atctctggga tgtcagtgag
                                                                        120
gctggttgaa gaccagaggt aaactgcaga ggtcaccacc cccaccatgt cccaggtgat
                                                                       180
gtccagccca ctgctggcag gaggccatgc tgtcagcttg gcgccttgtg atgagcccag
                                                                       240
gaggaccctg cacccagcac ccagccccag cctgccaccc cagtgttctt actacaccac
                                                                       300
      <210> 132
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 132
aaaactttgg gccatttcag aatttagaga gtttaatgaa tgtgcccttg tttaagtata
                                                                        60
aaagtacagt tcaagtttgt aactccatac tttgtccaaa gactggacgg gaaaaaagaa
                                                                       120
agtcaccgga aaaccggttc ctgagaaagc tcctcaaacc agacatagaa agagaaagac
                                                                       180
ttaagaattg cetgggetea eettgategt aagttgaeag tgetggaetg geageaaagt
                                                                       240
gaccgttgga gtttaatgag aggaatatac tcatcatcag tctatttaga agagatttcc
                                                                       300
      <210> 133
      <211> 294
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(294)
      <223> n = A, T, C or G
      <400> 133
tagggtaann engnannaaa angngeanta ngttnagaen ngnennnenn tnacnatnnn
                                                                        60
ngantagaac atntctatnn ngnnnnnana tntnannngn naaanagggt tntatgnnag
                                                                       120
nacnetente nennnnatee atteteatea geactgteee aggateetgg agagggagaa
                                                                       180
cccctggccc caggggaaag agggcggggt ctcccgtttc ctgtgcctgc accagccctg
                                                                       240
cccccattgc gtctgcacac ccctgcgtgt aactgcattc cataccaact aata
                                                                       294
      <210> 134
      <211> 300
      <212> DNA
      <213> Homo sapiens
```

<400> 134

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ccaatggatg caggaaaact gagatgggat ttccccacgt tgcccaggct ggtctcctga
                                                                        60
qctcaaagca atccaqattq ctqqqattac agctgtgagc caccgtgcct ggctgagatg
                                                                       120
acttttaaaa aaagacttct ctaaagtaga aggaagggtg gaattgtatg cacaagaaga
                                                                       180
aaaaaacctg gaagaaaaac atactaaaga ggctggagtg caatggcgcg atcttggctc
                                                                       240
accgcaacct cogcctcccg ggttcaagtg attotectge ctcagcctcc caggtagctg
                                                                       300
      <210> 135
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 135
                                                                        60
agactettea ttetateace etgteteaca aaagacttge ecaaggetae gaagcaagge
agtgactaga gtccagacat cagaactagt tccatgtttt ttttttcact accagtccct
                                                                       120
aggececaaa eegeagatee tgetgtgtga eeattaagee eetgaetgtt etaggeteaa
                                                                       180
cttccaaccc tttctgcagg tcctattacc tctgcctcat cctcccaaca tgataaccag
                                                                       240
agtetteett cacattgtae tgeetaeece ettatgttee eaggetetee ettggtttta
                                                                       300
      <210> 136
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 136
gtgtgcttgt gaaagtgtcc aggcgtgtgc acagccagtg cgcccacttc cgggctcctt
                                                                        60
gctccctgct gtactgaagt tttggatttt gcatccaatc ctgtgtgcct gcccttctgc
                                                                       120
cgaaggettg tgaggggeet gagteetetg eccateagga tgacaggete etteetgeag
                                                                       180
ggccatagga gggaagtttt ggaaacacag aatgattcca aggtgctctc gttcctgagg
                                                                       240
                                                                       300
gggactggtt tgtaacccat gacatctgtg ggcgagagag gcagctggga gcaggacact
      <210> 137
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 137
gctgcatctg caatgaggat gccaccctac gctgcgctgg ctgcgatggg gacctcttct
                                                                        60
gtgcccgctg cttccggtgg gtgcaggtgg aatgttctgt gcgagagctc aagggctgcc
                                                                       120
                                                                       180
tggatccctg acttgtatcc ctttgttcca cagagagggc catgatgcct ttgagcttaa
agagcaccag acatetgeet actetectee aegtgeagge caagagcact gaagacacce
                                                                       240
                                                                       300
tggtcctccc ggaagggcag tcccacaggc ageggcaccc atttctgggc cccgccacag
      <210> 138
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 138
                                                                        60
gcagggcaga gttctacctt ctcaaacccc ccagccggca catcacacac cggaggccag
gacccaagcc cagcagacac aggatctgct aacgcagctg gcagctgagg tggctatcga
                                                                       120
tgaaagetgg aaaggaggag geecagetge eteteteeag aatgatetea accagggtgg
                                                                       180
cccagggagc actaattcca agaggcaggc caactggtcc ttggaggagg agaagagcag
                                                                       240
                                                                       300
actgctggct gaggcagcac ttgagttgcg ggaggagaac acgaggcagg aacggattct
      <210> 139
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<211> 300

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<212> DNA
      <213> Homo sapiens
      <400> 139
aaaagatgag tgattttgtg tgggaaaagc cttcccaggc gtctgtaccg aaaggagcag
                                                                        60
caaacaaggg gctaatccat gagcagtgtt ctgtaggctc tgtgacatct ttggtttata
                                                                        120
ggattttgga gccttttatg atctggaact atttgagggg tttcattata ggccttggtt
                                                                       180
ctctccaggg gccagatgag tttattgtgg aatctttgaa aggacaaggc ctctgtgaat
                                                                       240
gaatcagtcc cagggaagca tttggtggtg gcggcagtgg aggattgccc ggtgaaccta
                                                                       300
      <210> 140
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 140
ctgctccgag tcaggcgcgg taaaaggcat tttacatatg ttacaaccgt gctctgaggt
                                                                        60
gggtgttgtc ttcttttgcc cgaaaaggaa acagagaggt taagaactcc cccagagcca
                                                                       120
catggacaga gctgggatcg aaccgaggct ccaagtccca gtgttctttc cagtacctca
                                                                       180
tgcatagacc agcettttcc tcatcaggca gatcctgcag aactggcacc tgggttgcac
                                                                       240
tragtggcct ctctgacgcc ccgcctgtgt ggacctctcc acccctgcc ttggcagcag
                                                                       300
      <210> 141
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 141
gccacattet gaggaacatg teatgttetg ggagggetaa ggcateaagt aaggeetgtg
                                                                        60
gggctggagg atcccaggca aggtggggca atccagagcc atgggggctt cccatgggaa
                                                                       120
ttgggaggtc ccaaggcaga gtcagaggtt ccacaggagg agtcagagag tcaccaaggg
                                                                       180
ctctcctggc ccagggagca gtcaacacca tggactgaac acttgctggg ctccaaccct
                                                                       240
tgggccaggc tgcccatgtg gggccaggag gcagctcaga gtgggaggca gagagagaag
                                                                       300
      <210> 142
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 142
ggagtgtgtt cctcttgacc ctggggctgc atctcctcgt tggtgacttc ctggggttca
                                                                        60
gaccetgeca cetectecat tttggggage aagateteat etgtetetgg gacaggagga
                                                                       120
cctgggttct gcactggtga ggctgagtgt ggggagcagg ctctgagccc ccagctcccc
                                                                       180
gtgtcccctg ctccccaggt gtacagtgcc accaacgtgg agctggtgac acgcacacgc
                                                                       240
acggagcacc tctctgatca ggacaagtcg aggagcaaag cggggaagac tccattccag
                                                                       300
      <210> 143
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 143
caagegeeca tggagetgee eetggageag gtgeeceeae egagagtgat ggaaaageee
                                                                       60
gtectegeca cetecaggea tggecageag egageggetg getetgeagg agaagtgetg
                                                                       120
ggtctgagct ccgtcacggc cgctcccgag agcccgaggt ccaagcccaa cacgacttgg
                                                                       180
aataaatgat caagttatga attaaacaca agagaaatgt aattaccaca ggagccagct
                                                                      240
```

```
gagaataaaa tggattacgc acatcacagt cattaaacgg tgatcacatg cgcctttcta
                                                                       300
      <210> 144
      <211> 298
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(298)
      <223> n = A, T, C or G
      <400> 144
                                                                        60
gccctgccca acctgctcca gggaccagtg gtcttgggaa gcttgggctg actgggattg
cagactccgg gtctggtgta tagggccctt ggcaaatccc tattcctttc tgggcctcct
                                                                       120
tgaagagaca gtgggctgag cttctaggct ccctttgatt cttctgtgtg tggcccagaa
                                                                       180
tgggacagac agactgagct gggcacagaa ataccatagt gacagaacca ttcgaagacc
                                                                       240
                                                                       298
ctgccctgat ggaggccccg ggccagggga ggaggcnnnn nnnggctgtc natctgaa
      <210> 145
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 145
gegacaette egeetgeacg agttetteeg gggeggaggt caccatggea getgeettgg
                                                                        60
ctcggcttgg tctgcggcct gtcaaacagg ttcgggttca gttctgtccc ttcgagaaaa
                                                                       120
acgtggaatc gacgaggtac gaaggggaag tgggtagaag cgggaagtgg tgcgccttcc
                                                                       180
ttcagccggg gctttaagcc ctcagcttgg cgctcctctg tttttccacc gtaggacctt
                                                                       240
                                                                       300
cctgcagacg gtgagcagtg agaaggtccg ctccactaat ctcaactgct cagtgattgc
      <210> 146
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 146
aattgatgag ccttattaac tatcttttca ttatgagaca aaggttctga ttatgcctac
                                                                        60
tggttgaaat ttttgaatct agtcaagaag gaaaatttga tgaggaagga aggaatggat
                                                                       120
atcttcagaa gggcttcgcc taagctggaa catggataga ttccattcta acataaagat
                                                                       180
ctttaagttc aaatatagat gagttgactg gtagatttgg tggtagttgc tttctcggga
                                                                       240
                                                                       300
tataagaagc aaaatcaact gctacaagta aagaggggat ggggaaggtg ttgcacattt
      <210> 147
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 147
                                                                        60
tgttcttgta gtgtttgttg ctattgttag aaagattatt agtgatatgt ggggtgtctt
                                                                       120
agctaaacaa cagacacatg taagaaaaca ccagtttgat catggagagc tggtttacca
tgcattgcaa ttgttagcat atacagccct tggtatttta attatgagac taaaactctt
                                                                       180
cttgacacca cacatgtgtg ttatggcatc actgatctgc tcaagacagc tatttggatg
                                                                       240
                                                                       300
gctcttttgc aaagtacatc ctggtgctat tgtgtttgct atattagcag caatgtcaat
```

<210> 148

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<211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 148
                                                                         60
attittgccat gtggcagttg gtttgtggag ttgggcaggt gtgaaagggt aaaactccac
ttctgaatgc tgcttctgcc ccctgggacc cagcacattg ttagaccatc ttcttgactg
                                                                        120
aaaattotot cotgatgotg agcootgoac caccacotto ottitootaa otatgaattg
                                                                        180
                                                                        240
atggcaaagt ccactcaaaa caaccagtta agtgctcacg agagagtagt caagcacctc
cagaaagaaa ccgggttttt gttcacatag caggaagtga ctccctgggt ggtaatttat
                                                                        300
      <210> 149
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 149
ttcaccaata gaacatgtca cacacgaact ggaaactgat tctgtgggcg acaagagtct
                                                                        60
atagtaaacg ttatqacaqa ttctttgaat gcgctaatct cagactggac taaagttggg
                                                                       120
attaaattta atttgtactt gagttcagtg cattgctgtt ctgggcatag gaaatccagg
                                                                       180
ttgctggtga tgaacagctg aaaagagctg tgtcaccatg gttgtctctg tcagtcatgt
                                                                       240
gaccaccctt acccttgtaa aatcaagcaa gggagagatt attttctaat gtaaagaaaa
                                                                       300
      <210> 150
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      \langle 223 \rangle n = A,T,C or G
      <400> 150
gcaggagaat cacttgaacc ctggaggtgg cggttgcagt gagcacagat catgccactg
                                                                        60
                                                                       120
cactccagcc tqqqcaacaa aacqaqactt cqtctcaaaa aaaaaaannn nnnnnnnnn
atcetttggn egggttetee caaattnttt tgaggggnee atggneaacn gettnagett
                                                                       180
tgttttggca acccentgce enaagnegca tataggetgt tettnacett gtttecaagg
                                                                       240
ctgaggaaca naaagtancc tntgttttga ggaggnggaa gttaagtatn cnttaatttt
                                                                       300
      <210> 151
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 151
agaaattaag gcctctgggt tcaatttttg gccccagtgt tgacctctgt gtaagcctgg
                                                                        60
caggatgtct catttctggg tcaccttttc cttgccaaca tagtgaggta tgtagaccaa
                                                                       120
atcattgcta agagcettet aacteetaag acaetaggtt tagteageea aaagcatgtg
                                                                       180
attttcccag atttcccaaa ctccttgtaa cctaattgaa agtacacaat gaacttgcaa
                                                                       240
gaatttaagc atccttagat gccagtcttc actttgggta ttttccagcc tcctcagtga
                                                                       300
      <210> 152
      <211> 300
      <212> DNA
      <213> Homo sapiens
```

```
<400> 152
qcaaaataaa tcatcagcag ttqqqccacc tqaaaaagtg agacggttta ctctggataq
                                                                          60
acttaagcaa ctgggagtag atqtttccat taaaccacgg ctaggtgctg atgaagattc
                                                                         120
ctttgtgata cttgaacctg aaaccaacag agaactggaa gccttgaagc agcgtttctg
                                                                         180
gaagcatgct aatccagcag ccaaacccag ggctggtcag acagtgaatg tgaacgtcat
                                                                         240
agtgaaagac atgggcactg atggaaagga agagctaaaa gcagatgtgg tacctgtgac
                                                                         300
      <210> 153
      <211> 293
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(293)
      \langle 223 \rangle n = A,T,C or G
      <400> 153
gagettegga agetgeeagt gecaeaggga eecaaceeeg tggtggtggt getgeageag
                                                                          60
gtettecage ttatecagaa ggtgetgage aaatggttga atgatgeeca ggttgnnnnn
                                                                         120
nnggtgtgct ctatctttga taagtttgnt nntanactgc tgnatgactt tnanntcatg
                                                                         180
gtgcanaaat gtgaaagatg ctttgccaaa tatgntaaat antgcttggg gccttgttnt
                                                                         240
gaattttcnt caatninnce atanatgatg natcittann gnicacceta tic
                                                                         293
      <210> 154
      <211> 270
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(270)
      \langle 223 \rangle n = A,T,C or G
      <400> 154
tatcagacaa tattttatta ttttttcata gatgttctgc cacacaaaga acttggggtg
                                                                         60
taaggataag qcaaaaqctc caatcccatt attcagttct cctaggatgc acccetcagg
                                                                        120
gagcctggcc agagttccga ggccnnnnnn nnnnnnntgn cncntgntcn acnntgnnng
                                                                        180
getneggege aggenngnet gagnantnee atgangetga tagnannetg antetgeegg
                                                                        240
ngaacngtna gganagagac nttactcgga
                                                                        270
      <210> 155
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 155
etgeceggtg gagegggtge tteteacett etgeaaceag tatggtgeee geeteteeet
                                                                         60
gegecageca ggettggetg aggetgtgtg tgtgaagtte etggaggatg eeetggggea
                                                                        120
gaagetgeec agaaggeece agecagggee tggagageag etcacagtet tecagttetg
                                                                        180
gagttttgtg gaaaccttgg acagccccac catggaggcc tacgtgactg agaccgctga
                                                                        240
ggaggtgcta ctggtgcgga atctgaactc ggatgatcag gctgttgtgc tgaaggccct
                                                                        300
      <210> 156
      <211> 300
      <212> DNA
```

```
<213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 156
ttgattaaaa acngcctcct taacctctga agactgattt tgctttatca tgtttcaata
                                                                        60
ataacatttc agaggttact ctgtagcccc agttgtaagc ttataaaaaac aaactggaag
                                                                       120
gctgaggagg ttatgggctg gcagccaggc tatgtttaca gctgctggag atggcagtag
                                                                       180
ccttatactt tgagcaggta gtacatccca ggctgtgcta gaggtagatt tgtttttca
                                                                       240
cgtttgatct gtggctggtg gccacctttg ttgatttggg cttacgagtt tcatagtage
                                                                       300
      <210> 157
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 157
gttggcttgg tgtggatgca ggttgctctc aaggaggatc tggatgccct caaggaaaaa
                                                                        60
tttcgaacaa tggaatctaa tcagaaaagc tcattccaag aaatccccaa acttaatgaa
                                                                       120
gaactactca gcaagcaaaa acaacttgag aagattgaat ctggagagat gggtttgaac
                                                                       180
aaagtetgga taaacatcac agaaatgaat aagcagattt etetgttgac ttetgeagtg
                                                                       240
aaccacctca aagccaatgt taagtcagct gcagacttga ttagcctgcc taccactgta
                                                                       300
      <210> 158
      <211> 295
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(295)
      <223> n = A, T, C or G
      <400> 158
ggtgtccaca ctgaagggcc agctgcagca ggagcttcga aggagctcag caccettctc
                                                                        60
cccaccetce ggcccccag agaaatgage teetgetgge atetggagaa caccectgtg
                                                                       120
cctgggacag gggaggaccc ttcttttgga cagcccccc ccagagcccg gtcccttgnn
                                                                       180
nnnnntaage tgnnnnnca etgggagaet ntgntantga aatnetnnte etnngetaat
                                                                       240
ttantentan negngnggtn tettneetgn nnecaagnea neneatgeat gtttt
                                                                       295
      <210> 159
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 159
aagcccgcca cccactgtgg gactttctgg tgggctcctc agctcccacc ccaggctggg
                                                                        60
gcccagattg tgaggtctgt gtgcatgtgt gtgtgtatgt gtgtgtgcat gcgtgtgtgt
                                                                       120
gttgtgggga tetggeetgg eeettgggga tggggetget ggggaetgee eeeetteeeg
                                                                       180
cegtqqccaq qcqctctqtq tqctqtqtqt qccccaqqct ctqttgaccc cgtccaqqaa
                                                                       240
ctaacttacc cagettggte teteetgagt cetecacect ggeetgggat tggeeaggga
                                                                       300
```

<210> 160

```
<211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 160
tgccctcagg cagccaaagc actttaaccc ctgcataggg agcagagggc ggtacggctt
                                                                   60
ctggattgtt tcactgtgat tcctaggttt tttcgatgcc acgcagtgtg tgcttttgtg
                                                                  120
tatggaagca agtgtgggat gggtctttgc ctttctgggt agggagctgt ctaatccaag
                                                                  180
teccaggett tiggeagett etetgeaace caeegigggi eeiggitiggg agiigggagg
                                                                  240
gtcaggttgg ggaaagatgg ggtagagtgt agatggcttg gttccagagg tgaggggcc
                                                                  300
      <210> 161
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 161
cccagctgga cctggtggcc ctttcctagt gcctctgctg ggggaggaga gcctgtgtgc
                                                                   60
acgtggaggc taggaggtct caggtgctgc cctggcagca ccagagtgtg ggccgggccc
                                                                  120
gagtgtctgc ccctcggccc tcagggtggg gcacttagca cccagaaggg accaaaagca
                                                                  180
gggcatggcg gtgcagagga gtttgggagg tgtaaacagc cccatgcacg tggaggagga
                                                                  240
getggettte agecceagae eccaegetag caetttecae getgettgee egetgatgat
                                                                  300
      <210> 162
      <211> 300
      <212> DNA
      <213> Homo sapiens
     <400> 162
60
aggtgcacca ggaagaagtg gtctggggct ggcactaagc catggcccag ggaagactgg
                                                                  120
gggacccact aggccaggat gagacctgca cgcagtggct cacagcagca cgatttgtga
                                                                  180
                                                                  240
cagcccgagg cggagaacac cgaacaccca gtgaaggtga ggggatcagc acggcgcggc
cacccacgca cccacgcgct ggaatgagac tcagccacaa ggaggtgcga agctctgacc
                                                                  300
     <210> 163
     <211> 300
      <212> DNA
     <213> Homo sapiens
     <400> 163
ctgacggagg ctttgctggc tgtggtgatg gggattgagt tgggggcaag ggtccctgcc
                                                                   60
tagactgttg acgtcccctg ggaaggggac ccaaggatga attggctgtg aaggatcctc
                                                                  120
cctgagactg gcaagggagg aggctgagca gaaggagtca tcatggagga gcggtgagaa
                                                                  180
catggaaccg gactccaaga tgacgatcta aagacccggg agcgagaagc caaggccagg
                                                                  240
300
     <210> 164
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 164
aggcagcagg tgaagaggca gggcccctga cggaggcttt gctggctgtg gtgatgggga
                                                                   60
ttgagttggg ggcaagggtc cctgcctaga ctgttgacgt cccctgggaa ggggacccaa
                                                                  120
ggatgaattg gctgtgaagg atcctccctg agactggcaa gggaggaggc tgagcagaag
                                                                  180
```

```
gagtcatcat ggaggagcgg tgagaacatg gaaccggact ccaagatgac gatctaaaga
                                                                        240
cccgggagcg agaaagccaa ggccaggttc tgggtgtagg gcccagagaa gcagaacagc
                                                                        300
      <210> 165
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 165
agacaaagaa aaggtggcaa tcatagaaga gttagtagta ggttatgaaa cctctctaaa
                                                                        60
aagctgccgg ttatttaacc ccaatgatga tggaaaggag gaaccaccaa ccacattact
                                                                       120
ttgggtccag tactacttgg cacaacatta tgacaaaatt ggtcagccat ctattgcttt
                                                                       180
ggagtacata aatactgcta ttgaaagtac acctacatta atagaactct ttctcgtgaa
                                                                       240
agctaaaatc tataagcatg ctggaaatat taaagaagct gcaaggtgga tggatgaggc
                                                                       300
      <210> 166
      <211> 286
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(286)
      <223> n = A, T, C or G
      <400> 166
cttgacttcc aactgcccct gagatttgac ctccagtata aggggcaggc gggtgccctg
                                                                        60
gagcgtccag tcctcattca ccgagcagtg ctcggttctg tggaaagact gttgggagtg
                                                                       120
ctggcagaaa gctgcggggg gaaatggcca ctgtggctgt ccccgttcca ggtggtggtc
                                                                       180
atccctgnnn nnnnnnnna agaggaatac gccaaagagg ctcaqcanat gcctgcgggc
                                                                       240
tgcaggactg gncantgacc tggatgctnt antctggact gatcct
                                                                       286
      <210> 167
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 167
ggattettte actgageaca aagagttgtt ggggetttag catetgactg attttttae
                                                                        60
ggggttgatt ctgaccatag gaagtatgca atgtgaatca ctatttacag agaaacctac
                                                                       120
aacagatgct tgatgttgta gaaactggga catatagata ccaagcaaaa ttataagaaa
                                                                       180
cctataaggt gttcaatacg cttgtgtttc caaaattcac tgtacatgat cagtttggtg
                                                                       240
ttcttgtacc acagttttta actgaaggaa ccagttgtaa cagtctcaat tttaactaaa
                                                                       300
      <210> 168
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 168
caaggetgea gtaagetaeg ateacaceae tgeactetgg cetgeatgea etetggeetg
                                                                        60
catggcagaa caagaccctg tctctaaaaa aagagaaaga aatcaaacta atcatgctgc
                                                                       120
tcatggattt ttccaataaa tttcttgttt tggcaggaag aaatgaacac tggtattaga
                                                                       180
cttaaagatt aaattteete aaacatgtee tatetgtagt agtteaaeta gacacetttt
                                                                       240
aaagtgcctc taaattcatc agatggccaa actgtattta taatccactt aggcattttg
                                                                       300
```

```
<210> 169
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 169
gcaagecagg agtgetggca caggeetgtg gtegcageta etegggagge tgaggeegga
                                                                         60
ggategettg ageccaggag gteaaggeta cagtgageeg tgateatgee actgeactee
                                                                        120
agectgggtg acagagegag accetgtete ttaacaacaa aacceatgag eggeageece
                                                                        180
ccagtcctgg atggtggtaa agaatcctca agatcaaacc cacgcagtgc tgagagcttg
                                                                        240
gcctgattct agggctgggg ctggagaaac tgctagagat gatgccgata gccagtgtga
                                                                        300
      <210> 170
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 170
caagagagag tgatagaatt ggcagtgaaa tatacgaacc accetectge cetetgggtt
                                                                         60
cacaatacgt gtacacttga ctgtgaagtg gctgtgagag tgggtggaga gttcttcttt
                                                                        120
gacceteage etgeggatge etetagaaae etegtgttga ttgeaggagg agteggaatt
                                                                        180
aaccctctgc tttccatcct gcggcacgca gcagatctcc tcagagagca ggcaaacaaa
                                                                        240
agaaatggat atgagatagg aacaataaaa ctattctaca gtgcaaaaaa taccagcgaa
                                                                        300
      <210> 171
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      \langle 223 \rangle n = A,T,C or G
      <400> 171
tttgcagccc cccctaggtg gaccenttaa ngatttggnt tttcccctgg gcanccaacc
                                                                        60
tgccccanag gcnccagacc tgggntttca gctttgggnc caggetgccc aaaggnactc
                                                                       120
enttataene ceggeneett nenegaaana nggnnettne caageaagee cetangattt
                                                                       180
gtccctatan anggaaangt gtggcangcn catgagttna aattntttta ngcnattctt
                                                                       240
ataatcaaaa totgaaggga aaaaaatgtt ttagttottt coccactogt tgggttcaac
                                                                       300
      <210> 172
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 172
cctagtccca gagtcctgga gcggcatact gggggtggct gtgcagtccc agcatcccca
                                                                        60
acceageatg tatagagage atceateett acateeaget gacceatgee catgeteete
                                                                       120
cctgtggctg gaggttcaac aataacataa gtctcttctt tgccctccag atatttctcc
                                                                       180
ctcgagtggc tgggaaactt ggcaagagac cagaggaccc aaatgcagac ccttcaagtg
                                                                       240
aggccaaggc aatggctgtg ccctatcttc tgagaagaaa gttcagtaat tccctgaaaa
                                                                       300
      <210> 173
      <211> 300
      <212> DNA
```

```
<213> Homo sapiens
      <400> 173
cgtgctaatg gaaaaattgt tagtaaaaat aggttcatgc agtcttattg atcatgcttg
                                                                      60
120
agttgtgaga aaacccagtt gtccaataat tgtcaagctt tcctcggcct tagggaatga
                                                                     180
gcactcaaga cctttctggg ccaagtgtgg tcgccgactc ctgtaatcct agcactttgg
                                                                     240
gaggccgagg agggagagct gcttgagcct aggagttcaa gactagcctg agcaacagca
                                                                     300
      <210> 174
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 174
ggaaagagaa gcatgcaaca attagatccc tcaccagctc gaaaactgtt gaagcttcag
                                                                      60
ctacagaacc cacctgccat acatggatct ggatctggat cttgtcagtg actttatgag
                                                                     120
agtttctgcc acaaggtgcc caagaggaga ggaatgggaa gagtgcccca gcacgtggtg
                                                                     180
actgcgtgat ttctgctcgt tgcctttgaa gataactggc aggactgact gtagaacact
                                                                     240
ttgacttttt tcaaaaagtg atggaatttg tacatccaaa tgaatattgt atagacaatt
                                                                     300
      <210> 175
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 175
ctggaaacca tttaccagaa agtgacgggc aaggagctga gatacgaggg cctgatgggc
                                                                     60
aaacccagca teeteaetta eeagtatgee gaggaeetga teaggegaea ggeggagagg
                                                                     120
cggggctggg ccgccccat ccggaagctc tatgctgtgg gtgataaccc tatgtctgac
                                                                     180
gtatacggcg ccaacctgtt ccaccagtac ctgcagaagg caacgcatga tggggcgcca
                                                                     240
gaactagggg ccgggggcac acggcagcaa cagccctcag caagccagag ctgcatctcc
                                                                    300
      <210> 176
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (300)
      <223> n = A, T, C \text{ or } G
      <400> 176
cgaaagecca tttcaagett tgtgetgect ettgatetae etetttgtee aggtggnnge
                                                                     60
getttgeetg gaggatttge atgegtttat tgegeaggee ttgtgeetee aaggaaaate
                                                                    120
cacctegeag cttgtaaatc tacageetga ttacateaac ceeagageeg tgeagetggg
                                                                    180
etecettete gteegeggee teaceactet ggttttagte aacagegeat gtggetteee
                                                                    240
ctggaagacg agtgatttca tgccctggaa tgtatttgac gggaagcttt ttcatcagaa
                                                                    300
     <210> 177
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 177
```

```
accetetetg gecacatgga ggeagtttee teagttetgt ggteagatge tgaagaaate
                                                                      60
tgcagtgcat cttgggacca tacaattaga gtgtgggatg ttgagtctgg cagtcttaag
                                                                     120
tcaactttga caggaaataa agtgtttaat tgtatttcct attctccact ttgtaaacgt
                                                                     180
ttagcatctg gaagcacaga taggcatatc agactgtggg atccccgaac taaagatggt
                                                                     240
tetttggtgt egetgteect aaegteacat aetggttggg tgacatcagt aaaatggtet
                                                                     300
      <210> 178
      <211> 298
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(298)
      \langle 223 \rangle n = A,T,C or G
      <400> 178
actgetectt catteccaag aagaaaagac aagtactget acttecaaaa etcagacaeg
                                                                      60
acttgaaggt gaagtgacte etaatteett gteaaceage tacaagacag tgteattgee
                                                                     120
attaagetet ecaaacataa agetgaatet caetageeet aaaaggggte agaaaagaga
                                                                     180
agaagggtgg aaggaagttg tacgaaggtc aaagaaattg tctgttccag cctcagtggt
                                                                     240
gteggaggat aatgggaaga ggaggatgen neatenetge nntacaggat gttactgg
                                                                     298
      <210> 179
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 179
gcaaggttgt gacattgtca cttttttgtt ctagactctt ttaaattttc tgcatttgcc
                                                                      60
tgaaaagcac ccctgtaaga atagatttct catggctcta aaaattattc ccaagaatac
                                                                     120
180
aagatgttct ttagagtaag caaacctaca acctaaaaat ctcttcaaga ggcatctctg
                                                                     240
gtcttgtgac aagacctctt caaaaaccca cagtaaaact cccctccctc cagttggcca
                                                                     300
      <210> 180
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 180
attacttaga agcttataac gaaagctaaa aagcaatttt aataggttca gtaaagccaa
                                                                     60
ctaccacata gattttactt aatatgtata agaatacaag ataaaagatc tttagacact
                                                                    120
ttacaaaact gccaaacttg ctaaagaaga tgaacctgat aaacagccac aggtacacag
                                                                    180
cctgtacact gaaatgtacg tgggaaagca cagtgcaaga atttcttgag ctgtcctgag
                                                                    240
ggttatgtta accagagett eteaacetea etacatatte aaatggeeeg ggagetttte
                                                                    300
      <210> 181
      <211> 300
     <212> DNA
     <213> Homo sapiens
      <400> 181
cttctaaatg tcctcctccc cacttgtttt attattactg tttttttctc tctttaatgt
                                                                     60
ttttttttat agagacatgg tctcactatg ttgcctgggc tgatctcaga ctcctgggct
                                                                    120
caagtgatec teetqeetca geeteecaaa gtgetgggat tataggegtg agecattgeg
                                                                    180
```

```
cctggctctg ttactggttt tctaacctga gttacttagg atcatatttt cattcttttt
                                                                         240
 taaaaagatg ggagttttct gaacttttcc ttaactaaaa agttggaatg catcttaata
                                                                         300
       <210> 182
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc_feature
       <222> (1)...(300)
       <223> n = A, T, C or G
       <400> 182
 gtacggtttt gttgaaccat atcctgacaa cacagatgac acagctgaca ttcagatggt
                                                                          60
 gacagttcgt gaggcagcat tacagggaac aaaaactgaa gctgaaaggc acctagtgta
                                                                         120
 cgagcgctgg gatttcctat gcaaactgga gatggtaggg gaagagggag cctttgtgat
                                                                         180
 agggannnnn nnnngctgac tgaagaggag ctgaccacca cactaaaggt actgtgcatg
                                                                         240
 cctgctgagg agttcagaga gcttaaagac caggatggag ggggagatga taaaagggaa
                                                                         300
       <210> 183
      <211> 298
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc feature
       <222> (1)...(298)
       \langle 223 \rangle n = A,T,C or G
       <400> 183
 gtctaatttt ttccattttt ctctcctctt tctcaagtct tctttttgat tttacttttg
                                                                          60
 cttttcctgc agttccttct ttatcatgta tgtgcttttt ggaactcttt ctgtcagtgg
                                                                         120
 taaagtetgt agagttteea gaetgaagae teagetetaa geaaggttte aettgegett
                                                                         180
 caagattttc ctgatacaaa gacttttcca tgtaactttc atcactnnnn nnnnnngntn
                                                                        240
 tgtaaatcct tttgattntt gattnntccc ancatataaa nnntctntan nncctcct
                                                                        298
       <210> 184
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 184
gaacagacaa gttctgtccc agcctctgct acctctaacc ccatggcatt ctatcctttt
                                                                         60
 ctacactggg cttccatttc ttaccccaac aatgatctgt tcttccaggt gctgtcattt
                                                                        120
 aatttcccag acacttgacc tccttctgat ttgtgtactc cctccaaggc tgagttgcag
                                                                        180
 tgagtgacaa taatctgtgc taattactta tcttgccaga agactcaaag ggtttatggc
                                                                        240
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                                                                        300
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       <211> 300
       <212> DNA
       <213> Homo sapiens
aaggccttag gcttttttt tgtagggtga gagtggggga gagatctctt gctctgttgc
                                                                         60
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ccaggetggt ctccagetcc tggcctccgg cagtcctccc acctcagect cccagagtac
                                                                     120
taggattatg ggcatgagcc accacaccta gccaggcttt ttatattgag ttggttatat
                                                                     180
240
aqtcaqtqtt tctqtaaqac aqtatatcca atattqqtta qaqtaacacc tatttggtga
                                                                     300
      <210> 186
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 186
aaaactttaa gaaaaccaat gtttggggcc aagcaatggg gagcttggcc gacctcattt
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ttttagtgat tttgaactca atctttaaaa tcctggaaga gaaggaaaaa aagggtgtat
                                                                     120
attegtgtaa tgacatecag ateteactgt tetettgget eetagtgatg ggggaaaaaa
                                                                     180
ggtgcgccca gggttgaccc ttcagtaaca cctgcagcca tgcatcatga cctccaggtg
                                                                     240
ttcagaggcc ctgcccatgt gacacgtgcc tggtacttcc catacatgtg cctctttaat
                                                                     300
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      <211> 275
      <212> DNA
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      <220>
      <221> misc feature
      <222> (1)...(275)
      <223> n = A, T, C or G
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aangnacnnt aangannnnn nntgaanacn tncannnaan tcnctaaaan nggngtanat
                                                                     120
                                                                     180
gacttcccct qctccqcatt ttqtaaaatg qcccctgggg gagtgttttt gctggatctg
ctccctctcg ctctctcact ccactacttt ttggaacaaa gtgatggcag aatgcggtgg
                                                                     240
tggtggggt cttttgtact gttggattaa taaaa
                                                                     275
      <210> 188
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 188
cctcctgtcg gggaggcaag gtggttttgg accagacagg cgtgtctaag ggttatggtt
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ttgtgaaatt cacagatgaa ctggaacaga agcgagccct gacggagtgc cagggagcag
                                                                     120
tgggactggg gtctaagcct gtgcggctga gcgtggcaat ccctaaagcg agccgtgtaa
                                                                     180
agccagtgga atatagtcag atgtacagtt atagctacaa ccagtattat cagcagtacc
                                                                     240
agaactacta tgctcagtgg ggctatgacc agaacacagg cagctacagc tacagttacc
                                                                    300
      <210> 189
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 189
gaacaagcac agcccaaqcc agatqtacag cacacacagc atcccatggt ggccaaagac
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aggcagette etacettaat ggcacagece eegcaaactg tagtacaggt gettgeagtg
                                                                    120
aaaaccacgc agcagctccc taaactgcag caggctccga accaaccaaa aatctacgtg
                                                                    180
caaccccaaa ccccccagag ccaaatgtcg ctcccagctt cttcagagaa acagacggca
                                                                    240
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agccaggtgg agcagccaat tataacccaa ggatcctctg ttacaaagat aacttttgag
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 190
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gctttgcctg gaggatttgc atgcgtttat tgcgcaggcc ttgtgcctcc aaggaaaatc
                                                                       120
cacctegeag ettgtaaate tacageetga ttacateaac eecagageeg tgeagetggg
                                                                       180
ctcccttctc gtccgcggcc tcaccactct ggttttagtc aacagcgcat gtggcttccc
                                                                       240
ctggaagacg agtgatttca tgccctggaa tgtatttgac gggaagcttt ttcatcagaa
                                                                       300
      <210> 191
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 191
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atactgaagc aaccatgece ategeagtac agtgetatta aagaagaaga tetegtggte
                                                                       120
tgggttgatc ctctggatgg aaccaaggaa tataccgaag gtcttcttga caatgtaaca
                                                                       180
gttcttattg gaattgctta tgaaggaaaa gccatagcag gagttattaa ccagccatat
                                                                       240
tacaactatg aggcaggacc agatgctgtg ttggggagga caatctgggg agttttaggt
                                                                       300
      <210> 192
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 192
gatctgcctt ctgaggaagt ggatcaagag ctgattgaag acagtcagtg ggaagaaata
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ctgaagcaac catgcccatc gcagtacagt gctattaaag aagaagatct cgtggtctgg
                                                                       120
gttgatcctc tggatggaac caaggaatat accgaaggtc ttcttgacaa tgtaacagtt
                                                                       180
cttattggaa ttgcttatga aggaaaagcc atagcaggag ttattaacca gccatattac
                                                                       240
aactatgagg caggaccaga tgctgtgttg gggaggacaa tctggggagt tttaggttta
                                                                       300
      <210> 193
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 193
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getettetet gtgeagagte actgtgteat egatgagegg actgatgtet ggteectagg
                                                                       120
ctgcgtgcta tatgccatga tgtttgggga aggcccttat gacatggtgt tccaaaaggg
                                                                       180
tgacagtgtg gecettgetg tgeagaacea acteageate ecacaaagee ceaggeatte
                                                                       240
ttcagcattg cggcagctcc tgaactcgat gatgaccgtg gacccgcatc agcgtcctca
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      <400> 194
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tgttgaccaa atgaatgatg acatagagta gttcagatct atcatgtgct cttctatcta
                                                                        120
atcagtcaat atttccttgg ccctcaaqcc aacattcatt ttttatgtat aaccttcttc
                                                                        180
atgattttga aattttgata gggtaactgc taatgagttc acaaatgtag cactttaaaa
                                                                        240
ggaaaataaa tggagagtga aaacaacttg gctacgtata attgtgggtt ttaatttttc
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 195
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cataggtaga cagactgttt ttagtaaggt tttgtttttt ggtgaatacc atgtttgggc
                                                                        120
tgtcagactt acttttcccc tgaqatccat attttgtaca tgacatacca gatatatgca
                                                                        180
atatgaaacg gaaacagttt ttcaatctaa tatccaggag tttgtgttaa tatcttgtga
                                                                        240
acttgtggct cttggtatct ggcattgata aggctgtcta ctaatcctag agaaagggaa
                                                                        300
      <210> 196
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 196
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tettetgett ggcaccatag ettaacetge agtttettea aaatgeecaa tgeettgttt
                                                                        120
cctattacct tagattgcaa accagtctag ggaagtctat gagaaagtag catttaatta
                                                                        180
                                                                        240
aagtttaaaa aaaaaaaggt tgggcgttgt ggctcatgcc tgtaatccca gcactttggg
aggetgagge gggtggatea etaggteagg agtteaagae cageetggee aacatggtga
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      <212> DNA
      <213> Homo sapiens
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      <221> misc feature
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ctgcagcact ttgagaaggt ccagaacaag cacctggaag tgcggcacca gcggagcggg
                                                                       120
cgtggggacc acctggaccg gagggttgtc ctctgacagg cctggcacgg aggagggccn
                                                                       180
anneganngg ntneatgant nnttnntgnt gnnngenntn engatgannn nntngganna
                                                                       240
                                                                       264
ngnngntnnn actngntggn nctg
      <210> 198
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 198
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                                                                        60
cacatgagca attatggggt ggagttgaga aaaaaaagtg tagcctgatg gaggtctctg
                                                                       120
                                                                       180
gaatagaaca ageettgeee atgeaggett eegageagee etgggtgggg ttgtggggag
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gcccccagcg gcttgtggca gccttcagct ctgcaggagc ccgtggggtc tagagtcacc
                                                                        240
gccctctgtg aactggaagc tgctctaatg ctgtgcacgt tttgatgtca caactatttt
                                                                        300
       <210> 199
       <211> 300
       <212> DNA
       <213> Homo sapiens
      <400> 199
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ctagagagga gaatggttgg atgtgcacct ggctctgcag gaagcccatc tcaggttatt
                                                                        120
gctgaggata agaagctggc actggaatgg ttggaaaggc tgtaagagct ccacatgcca
                                                                        180
cctggccctt tttgggtatg tggtgcccag acctgagctg ctatttagtc tgacaaagat
                                                                        240
agagggattt tttttcttcc ccctttgggc aacctgccca tgtattgtac agaggaaggc
                                                                        300
      <210> 200
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 200
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                                                                        60
tacaggatac tgacttagaa cctctgttgg aatgtggctg agtcaaagcc tcctgttgtt
                                                                       120
gttaggggta tctacagtaa ggagatgata cttcaggaga ttatatttca ctcaatgatc
                                                                       180
ttttctcatt tcagggctct tctcaaataa gctaaaagaa aaaggatcag gagacaggaa
                                                                       240
aagtetteeg tittgagtea tgagtaggge aatagacaag gitetettea aaaccateat
                                                                       300
      <210> 201
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 201
geetggaceg etcattegga etcgteggge agagettttg tgetgeettg caccaggaae
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tcagagaata ctatcgattg ctctctgttt tacattctca gctacaacta gaggatgacc
                                                                       120
agggtgtgaa tttgggactt gagagtagtt taacacttcg gcgcctcctg gtttggacct
                                                                       180
atgateceaa aatacgaetg aagaceettg eggeeetagt ggaeeactge caaggaagga
                                                                       240
aaggaggtga getggeetea getgteeaeg eetacacaaa aacaggagae eegtacatge
                                                                       300
      <210> 202
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 202
aaatatgcta cttagaaatt aaggcctctg ggttcaattt ttggccccag tgttgacctc
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tgtgtaagcc tggcaggatg tctcatttct gggtcacctt ttccttgcca acatagtgag
                                                                       120
gtatgtagac caaatcattg ctaagagcct tctaacttta agactctagg tttagtcagc
                                                                       180
caaaagcatg tgattttccc agatttccca aactccttgt acctaattga aagtacacaa
                                                                       240
tgaacttgca agaatttaag catccttaga tgccagtctt cactttgggt attttcctgc
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      <210> 203
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      <212> DNA
     <213> Homo sapiens
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<400> 203
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ttggggcctc tgaagtggca tggagattga ggtccagaga gcctgagatc ttgagggctg
                                                                       120
acatttggag agatggggte gagggttgte tttgggeett gaetgetttg ggeetttete
                                                                       180
actotoatto cogggatgot tigocagaat ototgotgga tiggocogtaa coetgicoco
                                                                       240
gagegggete acagggtetg aaggecacge atgaggcaaa ggtaaagtte tgagecacee
                                                                       300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 204
cccggataaa atatcaatta tgaagaggat atctgaatat gcagctgaca ttttctatag
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tagatatgga ggaggtccaa gactaactgt gaaagccctg tgtaaggaat gtgtagtaga
                                                                       120
acgttgtcgc atattgcgtc tgaagaacca actaaatgaa gattataaaa ctgttaataa
                                                                       180
tctgctgaaa gcagcagtaa agggcgatgg attttgggtg gggaagtcct ccttgcggag
                                                                       240
ttggcgccag ctagctcttg aacagctgga tgagcaagat ggtgatgcag aacaaagcaa
                                                                       300
      <210> 205
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 205
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                                                                        60
cagtgtttcc tagctaagaa cgtaaatgtg aggagggaaa tgtacttgca gaggtttcat
                                                                       120
aattatttac ttataaaaat agtcttcata gccgggcgcg gtggctcacg cctgtaatcc
                                                                       180
cagcactttg ggaggccgag gtgggtggat cacaaggtca ggagttcgag accatcctgg
                                                                       240
ctaacacagt gaaaccccgt ctctactaaa aatacaaaaa attagccggg cgtggtggca
                                                                       300
      <210> 206
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 206
ggccaaagag gtgctacatg cattgaaaga aaaggttact tcactacctg acaaccataa
                                                                        60
aaatgccctt gctgctaaca tagatgaaat tgtatttaca tcaacaggag acatctccat
                                                                       120
ttactatgat gagaaaggaa ggaagtttgt taacatcctg atgtgctttt ggtatctaac
                                                                       180
cagtgccaac atccccagtg aaactttaag aggagccagt gtattccagg ttaagttggg
                                                                       240
gaatcagaat gtggaaacta aacaacttct tagtgcaagc tatgagtttc agagggagtt
                                                                       300
      <210> 207
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 207
gaaatcagta gccccagaga tacctggcaa tagctttttg agaatctgga atacagttag
                                                                        60
cactcaaaca tttgtagaat gaagggcagt agaattatca tttctcctcc tgtctaataa
                                                                       120
ctgtgacaag ggagtggccg gtgacttttt ttggtagagc tttttcaaga aaaagtttag
                                                                       180
tectaeggae agtteggtag ttattetaet teagacaetg ggeatgttte atgttettea
                                                                       240
aaaagcccag ttatactttg gtttttgtt gtttgagacg gagttttgct cttattgcct
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```

<210> 208

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<211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 208
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                                                                        60
cctttctggg ggctcaacga atgttctgtg atgttgagtt caccacccta taccctggga
                                                                        120
gagagatagt gtgtttccat ttcacaggtc agcagactcg agcacagaga ggtgaggtaa
                                                                       180
cacageetgg caggagtgga gttgggatte aaggeetggt etgaatggtg gtgeteteae
                                                                       240
attgcagttg cactccaagg gacccttgca aggtgctaac agatgtgaat gccttttgga
                                                                       300
      <210> 209
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 209
catttgtaaa gctgcaggga aagaggttcc acttcccagc aaccccatcc taatggctta
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tggcagtatc tcaccttcag cttatgtatt agagattttt aaagggatca agtcgagtga
                                                                       120
gctggaagaa tetetaettg tgetgeettt etettatgte ecagacatte ttaaactett
                                                                       180
taacgaattc attcagctgg gctctgatgt tgaacttata tgccggtgcc tcttcttcct
                                                                       240
ccttaggatt cactttggac agatcactag caatcaaatg cttgtgccag tgatagaaaa
                                                                       300
      <210> 210
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 210
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                                                                        60
atataacatc ttcctgtcag aagactgatg gatctttttc attccaacca tctccctttc
                                                                       120
ccccgatgaa tgcaataaaa ctctgtgaca ccagcaacca ttgctcttta gaaatgggtt
                                                                       180
ttctgatcat atggctgatg tgttatgggc agtatggatg tcttcatttg ttgcttctgt
                                                                       240
ttttcatctt ttttgtttta ttaataaaaa tttatgtatt tgctcctgtt actataataa
                                                                       300
      <210> 211
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 211
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                                                                       60
acagaagggt ttgtagtcgg cctggcagtg gacagggagg ttggctagaa ctattacctt
                                                                      120
aggtccgtga taatatccct gaatccaact tttcagaaag aaataggtaa catatttttc
                                                                      180
accaggaage ttcacccaga cactgaacag aatggtetea gtgcactaat ggaggeteag
                                                                      240
ttaaagggtt gtggtagcac aaggaagaga cattctgact tggaaatttg gagaaggctt
                                                                      300
     <210> 212
     <211> 262
      <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> (1)...(262)
     <223> n = A, T, C or G
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gqcagagggc gcagggctta tggcctggcc ggagttggga ggtgaagcag agggcacagg
                                                                     120
gettatggcc tggccggagg tgggaggtga agcagagggc gcggggctta tggcctgtct
                                                                     180
ggaggtggga ggtgaagenn nnnnnnngag gangttnent ntgnatnnnn ntnntnanna
                                                                     240
nanantnnnt ntnnnannnc tt
                                                                     262
      <210> 213
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 213
                                                                      60
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gctggtggac aaagaagatg ttcacatctc caccagccag gtggctgaga ttgtagcaac
                                                                     120
actggaaaaa gaggagaagg tggaggagaa ggagaaggcc aaagagaagg cagagaagga
                                                                     180
ggtcgcagag gtgaagagct agaaccactg gcctgggcac ctgtcctcct gctgtgccgt
                                                                     240
caccetggca agggecgtga gggegattge tttgtggtga tteteagtgg etcatetaat
                                                                     300
      <210> 214
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 214
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                                                                     60
cctttggact caggcttgcc acagaggcct cccagggctc tcggccagtc agcctcagaa
                                                                     120
tgagagttac accactggct teettggtte aaccacette ttacetggae tgageeteae
                                                                     180
ttacagette tetaggtete cagettgeag acageetatg ggaggaette teageeteea
                                                                    240
taagtgtgtg ggccagttcg cctaataaat cccctctcct ggccgggcgc ggtagctctc
                                                                    300
      <210> 215
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 215
cctgacggag gctttgctgg ctgtggtgat ggggattgag ttgggggcaa gggtccctgc
                                                                     60
ctagactgtt gacgtcccct gggaagggga cccaaggatg aattggctgt gaaggatcct
                                                                    120
ccctgagact ggcaagggag gaggctgagc agaaggagtc atcatggagg agcggtgaga
                                                                    180
tcatggaacc ggactccaag atgacgatct aaagacccgg gagccagaag ccaaggccag
                                                                    240
300
      <210> 216
     <211> 272
      <212> DNA
     <213> Homo sapiens
     <400> 216
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                                                                     60
atctgtgcca catggaggtt ttgggatggg atttgaacgc tacctgcagt gcatcttggg
                                                                    120
tgttgacaat atcaaagatg ttatcccttt cccaaggttt cctcattcat gccttttata
                                                                    180
gctggaagat tggttaagga aaagcacccc ccatggcaga gacactgcac atgattgtgc
                                                                    240
atacagcaga atgcatgttt ggattttaga aa
                                                                    272
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<210> 217

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<211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 217
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                                                                         60
totatgtatt tgcaaccett tgtctctgga atcatattac actaaactgg aatctcagge
                                                                        120
tgaatgagaa taaccaagtg gagtaaaaag aagaaaaccg tttcttgatc accacttaat
                                                                        180
taacgatgct ctttctccaa aggatcagca cgttcttcct ctgagaactt gaaaatacaa
                                                                        240
atggacccca tgttttttta agcattacct tttcttagaa gactgccatc atctttata
                                                                        300
       <210> 218
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 218
cccaggcgta aatagagctc cctactccag accacctgcc acccacctcc caagttgaga
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acacaagcte cagetggget ggagagteag gettggtgca gggtgaettt ggegaagttt
                                                                        120
tgtcagatcc ataaagcaaa ctggaatttg agctttcact taccctagta tacgttctta
                                                                       180
aaaaaaaaaa aagtctatgg ggtataatcg agatggatac ctgggtcttt aaattacgta
                                                                       240
gggaattttg tatgtttaaa taattgtact gggttccata aagcttatct taaaaacttt
                                                                       300
      <210> 219
      <211> 297
      <212> DNA
      <213> Homo sapiens
      <400> 219
ggagatccag atattcttag acctgctgtt tgaacctgtg aggcatttca agaatggaga
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gtgccattct gcagtcattc aagcagtaga agacttggat ttgtctaaag ttcttccttt
                                                                       120
aggtcgtcag cacggtatct taaacagcct tgagatagta ttgaaaaaca ttagtcatct
                                                                       180
gatcagegea tacetgeega agattttgea gatactgete tgtatgaeag caacegtate
                                                                       240
acacatcett gaccaacgag aaaagatacg getgagattt attaateeat tgaaaaa
                                                                       297
      <210> 220
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 220
gtggggtagg catgggggtg gacaggggtg acgggctcca cagagacagg atggtggagg
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gagttgtgtg cagttgaact tgatcctgta gttggttttg acctggtgtg gtccctccat
                                                                       120
gctgtggaag tgaaatgtga gggaacaggc ctggggggcag tgagggagac aggacaagcc
                                                                       180
tttcatctaa aaggtggcac agagcttaag gccagggagg aaggtatgaa gaaaaggtga
                                                                       240
ttgagaacta attaccaagg gaaactggca agacaactgg atgcgtgtaa tccgaatggt
                                                                       300
      <210> 221
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 221
taaagctgct gtgatggcca cccttctctt tccaggacgg gagtttaaaa ttacacatca
                                                                       60
agagatgata aaaggaataa agaaatgtac ttccggaggg tattatagat atgatgatat
                                                                       120
gttagtggta cccattattg agaatacacc tgaggagaaa gacctcaaag atagaatggc
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180

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tcatgcaatg aatgaatacc cagactcctg tgcagtactg gtcagacgtc atggagtata
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tqtqtqqqqg gaaacatgqq aqaaqqccaa aaccatgtgt gagtgttatg actatttatt
                                                                       300
      <210> 222
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 222
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ctttccagga cgggagttta aaattacaca tcaagagatg ataaaaggaa taaagaaatg
                                                                       120
tacttccgga gggtattata gatatgatga tatgttagtg gtacccatta ttgagaatac
                                                                       180
                                                                       240
acctgaggag aaagacctca aagatagaat ggctcatgca atgaatgaat acccagactc
ctgtgcagta ctggtcagac gtcatggagt atatgtgtgg ggggaaacat gggagaaggc
                                                                       300
      <210> 223
      <211> 271
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(271)
      <223> n = A, T, C or G
      <400> 223
attggggact gacatettaa geteteaeet ggetgeagta ggaaaggeea aaetgaegae
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                                                                       120
aaaaaaaaa ttotttataa agatgatatg gtaacatgta totttgccct gggtctgggt
gggtccagtc agtctcagat ttacaagcat ttatgagcct aggtaaaagc tgctaatatt
                                                                       180
cttttaaaaq cnnnnnnnn nacttqcctq atagaaaact ccttccgggg gggnggattt
                                                                       240
                                                                       271
tataatanta cgtgngnnct naacanagtn a
      <210> 224
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 224
aagtotgttg coattocato totgtgttaa cacttoatat ttttatgaaa ttoagataat
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ttgtgagagg ctggcatgga tctaaggatt tattattttt attctagtcc atcagttcag
                                                                       120
tegeagtttt tataetagga etttaggatg taeataaatg tgtgaetgtt tgtettgatt
                                                                       180
                                                                       240
aaaagtgcac tttggcctgg gcatggtggc tcatgcctat aatcccagca ctttgggagg
ccaaggeggg tggeteaett gaggetagga gtteaagaet agegtggeea acatgaggaa
                                                                       300
      <210> 225
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 225
                                                                        60
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ggaatccacc ccgtttattg tagaactggg ggttcagagg gcaggtgcct cagagttgag
                                                                       120
gccacacagt gaggtctggt gggtgaaagg acccaggaac gaggcgttca ggaaagcagg
                                                                       180
                                                                       240
ttgtcagagc tatgtggagt ctgtgggtgg caggggcagc cgctccagcc tttgaagact
ttgaaagcca gagattcctg gcgcaggctt ggacttcctg ggagctcctc caagtaccca
                                                                       300
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<210> 226
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 226
gtggtttcct gcacatcttt ggagtagtta tgacttctca gtttttcccc ccttaaactg
                                                                         60
cattgcctat tcttttttcc tgacatgcta tcaggtatca gtgtgttgaa tacatactgc
                                                                        120
ttgtgtatca gacttacgtt actgtcatca ccattaaaag aattgcagct ttgtgcccca
                                                                        180
tgaccttcag ctcagttgtt gactgtcatt catgaatgcc taaagcatac tgacaccagg
                                                                        240
tataagtact tgaagatcaa gaactagtca ataaaacatg agcaacataa tggtaactat
                                                                        300
      <210> 227
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 227
acagggtcaa aattttcatt ctqcataaqq taggtttagt ctttttcaaa acattctagt
                                                                         60
aggcaagtct gtagctgaat cttggaagaa aggcaaccat agtaatattt ttgagttcct
                                                                        120
actgtttatt ttttcaataa aaactcaggt tctcaggtta gcagatcatg gtcttaggaa
                                                                        180
ggtagctgta gaaccaaaat ataaattcct aagcttctac caattgggtc ttactgaaat
                                                                        240
ggcaattgag agagaagtaa atctettggt tttcaccata gttactttat gtttcctttc
                                                                        300
      <210> 228
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      \langle 223 \rangle n = A,T,C or G
      <400> 228
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ccaggctgcc attattattc agaagcattg taaagccttt aaaataagga agcattatct
                                                                        120
ccacattaga gcaacagtag tttctattca aagaagatac agaaaactaa ctgcagtgcg
                                                                        180
tacccaagca gttatttgta tacagtctta ttacagaggc tttaaagtac gaaaggatat
                                                                       240
tcaaaatatg caccgggctg ccacactaat tcagtcattc tatcgaatgc acagggccaa
                                                                        300
      <210> 229
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 229
ggtgccatgg agttcaccat ctgcaagtca gatatcgtca caagagatga gttcctcaga
                                                                         60
aggcagaaga cggagaccat catctactcc cgagagaaga accccaacgc gttcgaatgc
                                                                       120
ategecectg ecaacattga agetgtggee gecaagaaca ageactgeet getggagget
                                                                       180
gggatcggct gcacaagaga cttgatcaag tccaacatct accccatcgt gctcttcatc
                                                                       240
egggtgtqtg agaagaacat caagaggttc agaaagctgc tgccccggcc tgagacggag
                                                                       300
      <210> 230
      <211> 300
      <212> DNA
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<213> Homo sapiens
      <400> 230
aatcccacaa agcctagcac caaacttctt tttttcttcc tttaattaga tcataaataa
                                                                      60
atgatectgg ggaaaaagea tetgteaaat aggaaacate acaaaactga geactettet
                                                                     120
gtgcactagc catagctggt gacaaacaga tggttgctca gggacaaggt gccttccaat
                                                                     180
ggaaatgcga agtagttgct atagcaagaa ttgggaactg ggatataagt cataatatta
                                                                     240
                                                                     300
attatgctgt tatgtaaatg attggtttgt aacattcctt aagtgaaatt tgtgtagaac
     <210> 231
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 231
cacaaggaga agaaagttaa ttaacattga aagatgagaa gacatcttgg aagaacttga
                                                                     60
attgggcctt ggaagaagaa cagccattca aatagataga attgtggtag caaaggcata
                                                                     120
                                                                     180
gaggtaggaa agtatagatc tccagggaca gtagtcatgg ggttggggca ctgttggaat
ttaaggttgg aaggatatat tggagcccct tgaatacggt aacaaggcac accttgggca
                                                                     240
qtqqaqaqtt atcaqaqtqt ttqaaaaqga gggttattga gtaaataaat agactggtac
                                                                    300
     <210> 232
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 232
gttaaactgt cagtattgga tcttagaagt aaatgattat taggactgta atagtaatta
                                                                     60
ttaggactgt aaaagtaaag gattattatc tgcattagat atcattatat ctaatgatat
                                                                    120
agagactgca gacataacta cagggctctt tttcttaaat cagaaaatcc agattcaata
                                                                    180
gaaatagggt aaagtgatag gaggacaaat agcettecat ccagtggtta tcaactgacg
                                                                    240
300
     <210> 233
     <211> 273
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> (1) ... (273)
     <223> n = A, T, C or G
     <400> 233
ggcagctaga gtcaggaaaa tgaccctcat atgcttttaa tctttgtttc agttgtctgt
                                                                     60
cagggttgaa ttaagaagct actggtttat tcccaattgt tgatgccttt aggtatgttg
                                                                    120
gaatcttttt ttttgcctag gaggggccag ttgaaaatct gtgactcaag aggcagtgaa
                                                                    180
cagaatactg ttttctqqqq aaaaattggt tggctacttg atgttaattn nnnnncagta
                                                                    240
                                                                    273
acagganaag gntgtgtctn ngctattntg nng
     <210> 234
     <211> 300
     <212> DNA
     <213> Homo sapiens
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<400> 234

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ccacctctca gacgtgagta aggaattgcc ctccttgtct cagtgggaca aggcttgaag
                                                                        60
ctaattggag gaggtggaga gaaatttaga gggggtcctg gttagggtac ccataaaaat
                                                                       120
agagatgett gggatgttet gageaaagga geeagaatge agagaacagg accaeageee
                                                                       180
tagtagctag ggggggagtt tgagatgcag cctgggggtg ccctgcctaa tttcagagac
                                                                       240
ttaagggcca gtgtcagtga cagggtcagc aggggtgggt gagaatctgc ttaaggctag
                                                                       300
      <210> 235
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 235
ccttccacgg ttatttcaca gatatggaga gctggaagca gggagtgagt ctctgagtgt
                                                                        60
tggaattgta agggatcaga agcagggatc agaagcagtg gtgaagttca tccaccataa
                                                                       120
aacacacagg tgactttgcc ttgaatctgc aggactgaag ccaactcttg ggcacagacc
                                                                       180
cttagtccct tccttggcca ctctaagtca gatagtccag agccaggccc tttgggatgt
                                                                       240
gacaccgaga taaatcagag aaaagctgtg aagcttgggg aacagaggga cttttggtga
                                                                       300
      <210> 236
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 236
cagtgagatt cctcttctgg tattaccttt gcttcattgc tgaatcttct ccaatatcat
                                                                        60
cttctaaaaa gagcctttta aaatcacctt ttctattatg ccctactcat ttccagtccc
                                                                       120
tgaattgccc attccccact tcatagcact tattgctatc tgaaattaca ctaaatgtca
                                                                       180
cetteatgat ggtaggeaat ttattgeett tgteaetgtt atgtetagag aacaageage
                                                                       240
tggctcatag taggcactca acaaatattt gttcaatgaa qaatttataa atgaatgcct
                                                                       300
      <210> 237
      <211> 274
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(274)
      <223> n = A,T,C or G
      <400> 237
ctgggctgca tctggccctg gctggaggcc ttgctttgag gggctgagac cctcttcccc
                                                                       60
caggeeetee ecageegaeg acageeaeeg gagaggagat eggaacaega ttgnnnnnn
                                                                      120
tgcagggcgc tgggcggaac naatccncaa ggactctgan atnnnccctt gnnantnncn
                                                                      180
angngannna nnananannn ntatacatan anccnnanac ccnaannaca nacanngngc
                                                                      240
anancnannn nancannnnn aannagnnna nnna
                                                                      274
      <210> 238
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 238
tgtcaccttc tcccacagcc atttccaccc atcgttgtct agaatctctt tcattagcac
                                                                       60
attccaaccc ctctgccact tggtttagaa atgagctccc tggctcagtg ggcctttcag
                                                                      120
aatctggaac cagacggagg tggagttaag aagataggac agaacaggca ggcccaggtg
                                                                      180
```

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ctatggttcc actggggaga gaccatttaa ttctccagat gctttactcc ctgattgtct
                                                                        240
tttagccatt attetttteg ttttaaqaqa catqqtetca etetqteace caqqetqqaa
                                                                        300
      <210> 239
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 239
caggattgtt cattttgtct tttgtttgtt ttggggaaca gggtcaaaat tttcattctg
                                                                        60
cataaggtag gtttagtctt tttcaaaaca ttctagtagg caagtctgta gctgaatctt
                                                                        120
ggaagaaagg caaccatagt aatatttttg agttcctact gtttattttt tcaataaaaa
                                                                       180
ctcaggttct caggttagca gatcatggtc ttaggaaggt agctgtagaa ccaaaatata
                                                                        240
aatteetaag ettetaeeaa ttgggtetta etgaaatgge aattgagaga gaagtaaate
                                                                       300
      <210> 240
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 240
gcactgcgtc aagccactcc tggagaagaa tgatgtggag aaagtggtgg tggtgatttt
                                                                        60
ggataaagag caccgcccag tggagaaatt cgtctttgag atcacccagc ctccactgct
                                                                       120
gtecateage teagactege tgttgtetea tgtggageag etgeteeggg cetteateet
                                                                       180
gaagatcage gtgtgcgatg ccgtcctgga ccacaacccc ccaggctgta ccttcacagt
                                                                       240
cctggtgcac acgagagaag ccgccactcg caacatggag aagatccagg tcatcaagga
                                                                       300
      <210> 241
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 241
gggatgaata tttaaggtga agcaaagtag ctgtggctac ttggggccaa aagcttccca
                                                                        60
gatgeteetg etetaageae atgatgtttt ttggggaaag tggtageagg tagagggtgg
                                                                       120
cagaaagtgt gagaagcact tqttqtaqqt gacccagaca tgcctcttga attqaattcg
                                                                       180
gtgatetget tetteagetg etttettgte eetgeecage aggatgecag gaaacacata
                                                                       240
gccctgtaga aaatcactgg agaagaggat gattggagtt cttcatttct taaaaaacag
                                                                       300
      <210> 242
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 242
aaatgaagte ettgageeag aaaaggatae cageeceaet gttaagtgat gattgtgtge
                                                                        60
taaagcagcc taaqagttct atcctaacac aaqagcctaq aaaqtaactt cttaqqcaqt
                                                                       120
gtccaaagaa tgccagtagt ccttggggac ttttcagagg tgcttggctt gaatcaattt
                                                                       180
ctagatecea aageagagte tteatgeaca ttttgegget gtagtgtaca geaaatgget
                                                                       240
cttggctagg tttagaatgc tgcttttacc attctctgta cctgacccag tttgagtctc
                                                                       300
      <210> 243
      <211> 300
      <212> DNA
      <213> Homo sapiens
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<400> 243
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                                                                        60
gtcattgcag tgcatggata acaatcttct gcaagcccgt gcagcccttc agacagctta
                                                                        120
tgtggaagtt cagaggctac ttatgctcaa gcagcagata actatggaga tgagtgcact
                                                                        180
gaggacccat agaatacaga ttctacaggg attacaagaa acatatgaac cttctgagca
                                                                        240
cccaggtttg gcatagaaat ggtacccctt gttcaaaatg aacaagaagc cttagatttg
                                                                        300
      <210> 244
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 244
ctccagtata acctcatctg tatccgcagc aaccgtttac caataaggtc acattctgag
                                                                        60
gtactagagg ttgggacttc aacatcggaa tttgaaaggg acagcattca gcccatgact
                                                                       120
ccagataaac gtgaggtatg ctatatcatt cctaatttac agatgagtca atacaaactt
                                                                       180
gagtgagctt gctcacaatt ccatcaaagg cagggttcag acccaagttt cagcatttag
                                                                       240
ggcaggtgtc ctctgcatgg aagaaccata ctcaatagcc gtaaacgctg acaaattccc
                                                                       300
      <210> 245
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 245
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                                                                        60
cacagaggcc tccacgaaga atatttttgg ccgatactct tcacagcgga tgaaggattg
                                                                       120
gcaggagatt atagctctgt atgagaagga caacacctac ttagtggaac tctctagcct
                                                                       180
cctggttcgg aatgtcaact atgagatccc ctcactgaag aagcagattg ccaagtgcca
                                                                       240
gcagctgcag caagaataca gccgcaagga ggaggagtgc caggcagggg ctgccgagat
                                                                       300
      <210> 246
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 246
tggctgctca ccactccatt ggcctgcctg cgcgccaatt cccttcggtg ggccccggtt
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ggctgcaggc tgaggtctat tccactgacc accectctcg gtgccgccca cagtgatect
                                                                       120
ggtgcacgcc tcgttgcgcc tgcgcaacct taagaacaag attgagaaca agatcgagag
                                                                       180
cattggtete aageggaege caatgggeet getactagag geactgggae aagageagga
                                                                       240
ggctggatcc taggcccctg ggatctgtac ccaggacctg gagaatacca ccccacccc
                                                                       300
      <210> 247
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 247
agaaaaacaa cagagagaaa aagaatacct gagatatgta gaagctttac gagcccaaat
                                                                        60
ccaggagaaa atgcagctgt ataatattac tttacctcca ctatgctgtt gtggtcctga
                                                                       120
tttttgggat gctcatcctg atacctgtgc caacaactgt attttctata aaaaccacag
                                                                       180
agcatatact cgggcactac attcattcat caattcctgt gatgtccctg ggggtaattc
                                                                       240
aactettega gtegeaatte ataattttge ttetgeacae aggeggaett tgaaaaatet
                                                                       300
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<210> 248

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<211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 248
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gagtgttttg agaatggcta agagaagata ggttgaatag ctatgcctac atgtcactaa
                                                                       120
                                                                       180
ttaacatctc agagatctct gctacaggtt gtcgtcctca ttttgtctaa tatttttcca
atgqcatgag tataggaaga taaacgggga atgttttgaa gtaataaaaa aattccatcc
                                                                       240
ataaagaaga acaacatgta ttaagctttg tgcaccaaac aacacaacag gaagacacat
                                                                       300
      <210> 249
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 249
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                                                                        60
cacaataagg ggtggcacag aatcagcaag atatgcagtt caactaatca atgcactcat
                                                                       120
                                                                       180
tcaagatcct gctaaggaac tggaagactt gattcctaaa aatcatataa gaacacctgc
cagcaccaaa tcaattcatg ctaacttctc atctggagta ggtaccacag cagcttccag
                                                                       240
taaaaatgca tttcctttgg gtgctccaac tcttgtaact tcacaggcaa caacgttatc
                                                                       300
      <210> 250
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 250
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                                                                        60
gtacatgcgg gttattagcc agcggtaccc agacatccgc attgaaggag agaattacct
                                                                       120
ccctcaacca atatatagac acatagcatc tttcctgtca gtcttcaaac tagtattaat
                                                                       180
aggettaata attgttggca aggateettt tgetttettt ggeatgeaag eteetageat
                                                                       240
ctggcagtgg ggccaagaaa ataaggttta tgcatgtatg atggttttct tcttgagcaa
                                                                       300
      <210> 251
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 251
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                                                                        60
aactccaaat caacagtatt ttcaacaaga aatgtgcaat tgaaatcaag tgctgtttaa
                                                                       120
gtgcagctag gatttccaca ggaagacact tgcagtgaac agagttatgg agcagcaaaa
                                                                       180
acacagatct atttggaaaa agagaaaaca tatgcgttgt attttgcttc aattataaaa
                                                                       240
taccatcctc tcaaaggtgg ttctaaatta caaaggactt tgatttctag gtagattctg
                                                                       300
      <210> 252
      <211> 300
      <212> DNA
     <213> Homo sapiens
     <400> 252
gaacaaagaa ggaatgtett eeteatgttt gggtetatag aagaegttaa agaaaaette
                                                                        60
cagaaagtgg gtttgaggca tgagccacca cgcctggcca aaggatttaa tgaattaatg
                                                                       120
gatgtacagt gctggggctg ttattctagg gcctgcattg agactcacat tttgccatca
                                                                       180
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aaagcetttt aagaggtgga ggttgeggtg agetgacatg gtgecactge acteeggeet
                                                                       240
gagtgacaga gtgagactct gtctcacaaa aaaaataatg ccctttaaat aatgaataat
                                                                       300
      <210> 253
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 253
gaacaaagaa ggaatgtctt cctcatgttt gggtctatag aagacgttaa agaaaacttc
                                                                        60
aagaaagtgg gtttgaggca tgagccacca cgcctggcca aaggatttaa tgaattaatg
                                                                       120
gatgtacagt gctggggctg ttattctagg gcctgcattg agactcacat tttgccatca
                                                                       180
aaagcetttt aagaggtgga ggttgeggtg agetgaeatg gtgeeactge aeteeggeet
                                                                       240
gagtgacaga gtgagactct gtctcacaaa aaaaataatg ccctttaaat aatgaataat
                                                                       300
      <210> 254
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 254
gttacccttc agataaagaa gggaagaagc ctaaaggaca gtcaaagaag cagcccagtg
                                                                        60
gaaccacaaa aaggccaatt tcagatgatg actgtccaag tgcctccaaa gtgtacaaag
                                                                       120
catcagattc agcagaagca attgaggctt ttcaactaac tcctcaacag caacatctca
                                                                       180
tcagagaaga ttgtcaaaac cagaagctgt gggatgaagt gctttcacat cttgtggaag
                                                                       240
gaccaaattt tetgaaaaaa ttggaacaat ettttatgtg egtttgetgt caggagetag
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      <212> DNA
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      <400> 255
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ttgtatccag aattttaccg aattgctaca gacccaacca tccacactgt cccagaaggc
                                                                       120
agacctgtga atgtctgagt gggaaaagag tggtatcgat ttcccagcag cttccttctt
                                                                       180
cctgacaatt ggcagcttca gttcattcca tcagagttca gaggtcagtt accaaaacct
                                                                       240
tttgcagaag gacctctggc cacccggatt gttcctactg acatgaatga ccagaatcta
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      <211> 300
      <212> DNA
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      <400> 256
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aaaggtagat gagtaggaag attaggactc ctgagttgcc catgatttca tctaattttt
                                                                      120
ggattcagaa tgtattttat gaataatatg cagagatgca tattaggaat gtgaagccag
                                                                       180
aatgggtcag ttgtagctgc tgcaaagttc tgtagctgat ggtcatttaa ttgcatgggg
                                                                      240
gttattttat ctttcatgat tgtggtgcac ctgatgctgg cggggatttg tgtgtttttg
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     <212> DNA
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acagtattac ttcagagetc agettetete ettggatttt eteteageaa atgggagaag
                                                                     120
taacgtctgc ccttcggagt tgttacaagg agacaagata aacacagggt ccaagtgctt
                                                                     180
ggtaaatggt aagtgctgtt attagagtca ggtgttctag tcacaggtcc tcaacagata
                                                                     240
300
      <210> 258
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 258
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aaggaatgct ggcattttgg aaaccctttt gaggcttatg ttgtcatgtt cataattcag
                                                                     120
ccgatagaga aaaaaccgag aaactgtaga ataggctatc caacttccac atggggagat
                                                                     180
acagetacag ataatgttet caggaceett tgtetttagg tgeagtaaat gatetgeatt
                                                                     240
tttagagagt ggaagagtat ccccattctt gcctgttgca actgtggatc ccagtcgcca
                                                                     300
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      <211> 291
      <212> DNA
      <213> Homo sapiens
      <400> 259
ctacacagtt cccattcatt accttaacat tgtactgaga gagacccagg tctgacctgt
                                                                     60
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atagcagttt gagtcgaggg gctgtcaaag gggttgccaa agtcatctaa aggacttggc
aacagaagta gcattatgac ttggatccac ttctttatag accaatattg gcagccatga
                                                                     180
aggctggctt gtcctgggtg cggaattcag ttttagtggc tgaatgcaca gacagcagga
                                                                    240
agagagaata ggggacaatg aacaacagag agagaagaaa tgcagtgtgt a
                                                                     291
      <210> 260
     <211> 300
      <212> DNA
     <213> Homo sapiens
     <400> 260
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gccaccagga gagattttat ctaaccaata gtacttccag gaagatcctc acccttgtac
                                                                    120
tttcaagaag cacttgtaat taatgttcag cttcctgaac actgagtggt acttgaaaat
                                                                    180
ctctgtggtt tatagcctta caaaagctac tctggaggct gaggcaggag aatcgcttga
                                                                    240
acctgggagg cagaggttgc agtgagccga gatcacgccg ttgcactcca gcctgggcga
                                                                    300
     <210> 261
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 261
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ctttgcaggg cgaggtgggg cctctgcagc catcctggac aggccggggt ggcggcagct
                                                                    120
                                                                    180
ttgcccacgt ggaagcgggg tgggtctcac ttgcgtggtg gcccctggcc ccatcttgcc
tgctgcggcc tggggagcag gcgctgggtg gtggttctgc ctgcttgctg ctcgttcccc
                                                                    240
gggcatgcgt gggcagcggg gggcatgcgt gggcagcagg gggccgtggg cagcgggggc
                                                                    300
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<210> 262

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<211> 300
       <212> DNA
      <213> Homo sapiens
      <400> 262
gcatcctctg atggcactgt aaagatctgg aatatgaaga ccacagaatg ttcaaatacc
                                                                         60
tttaaatccc tgggcagcac cgcagggaca gatattaccg tcaacagtgt gattctactt
                                                                        120
cctaaaaacc ctgagcactt tgtggtgtgc aacagatcaa acacggtggt catcatgaac
                                                                        180
atgcaggggc agattgtcag aagcttcagt tctggtaaaa gagaaggtgg ggactttgtt
                                                                        240
tgctgtgccc tctctccccg tggtgaatgg atctactgtg taggggagga ctttgtgctc
                                                                        300
      <210> 263
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 263
atttctactt gagctaaggt agtattgtgt atcctctttc cttcttaggt atccataatc
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cacaaagcat atttaaaagg ctcttggcac gggcagcatt ggttgagcag gtaggtttgg
                                                                       120
ctagggggaa atgtttaact tgttctgaaa gaaaaactta tgtctgtagg gtccaagaaa
                                                                       180
cagctattcc agagtcagtg tcagctgagt ctggaacata tgaagtgagg tttacttcta
                                                                       240
agaacacaag tgactgcaca ctaattttgt caaggcatct tttcactact ttgctgtaga
                                                                       300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 264
gctcttgggt tttatgtccg ctgcttcttg gttgccgaga cagagagatg gtggtctcgg
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gccagcccct cctctccccg ccttctggga ggaggaggtc acacgctgat gggcactgga
                                                                       120
gaggccagaa gagactcaga ggagcgggct gccttccgcc tggggctccc tgtgacctct
                                                                       180
cagteceetg geeeggeeag ceaeegteee cageaceeaa geatgeaatt geetgteeee
                                                                       240
cccggccagc ctcccccact tgatgtttgt gttttgtttg gggggatatt tttcataatt
                                                                       300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 265
gacttctaaa tatatcttgg atataatagg tgataagttc tgtcaattag taacatctga
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aaaaacaget ttgteetggg tgaaaaagga tgecaaaatt geetggaaaa gageagtgag
                                                                       120
aggagtccgg gagatgtgtg atgcatgtga agcaacattg tttaacattc actgggtctg
                                                                       180
ccaaaaatgt ggatttgtgg tctgcttaga ttgttacaag gcaaaggaaa ggaagagttc
                                                                       240
tagagataaa gaactatatg cttggatgaa gtgtgtgaag ggacagcctc atgatcacaa
                                                                       300
      <210> 266
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 266
gtcacctcca ctagaggggg ataaaaagga taataggaaa tcagaatatt ttgatttgta
                                                                        60
gttcaactgt tgatcaatta tctttgagac ttttaacatt catgactaag gaggattaat
                                                                       120
aattaacatg agctgtagaa ttaaggtttg tatggcatga taagtataaa ccagttttgg
                                                                       180
```

```
gaccgctata attctaaaaa agcaggtaga ctagatgatt agttgtacac ttattactgc
                                                                        240
taattcttga ttgtagaaca aattttccta tgaaaaccat gttgtgtatt ttatatctct
                                                                        300
      <210> 267
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 267
                                                                        60
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tattgtaaca cagaatactg tcaatcccta atttacttaa tgttacttat tggaagtggg
gctgatgaaa tacgcacagg agggaaatct actgtgttta ggcacaggca gccccagtgt
                                                                        180
                                                                       240
ataaggagat catattecaa aaggttgtca qttqqttqtt tgcaacetgg aatgtatttt
cctttagaga ccaggttatc catggtggtt aggcccctag agcagctgga aaagatgatc
                                                                       300
      <210> 268
      <211> 276
      <212> DNA
      <213> Homo sapiens
      <400> 268
                                                                        60
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tcattttcac cctgattctt gccccactt tcataaaaga aacttcaaaa tgctgacgct
                                                                       120
ttggagagta agaaaatcaa tcttggctgg gcacggtggc tcctgcctgt gatcctagca
                                                                       180
ctttgggagg ctgaagctga aggatcactt gagctcagga gttggagacc aaccetggca
                                                                       240
acataacaag accetgtete tacaaaaaaa aaaaaa
                                                                       276
      <210> 269
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 269
getgecacca ceceegggee cageetgtet gaaagtteag ggtttaggee gagaaacceg
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gtggggaggg gtggggagcc ggagctctgt ggcggggctg gagggctggg gtgcacttta
                                                                       120
                                                                       180
gtttggggcg ggacgggagc cgccgttgtg actggcgtgg tctggctgct gctcccgaac
ggaggggteg gggttggett getgggeeet cagageeeag tgggtggete tgaetegget
                                                                       240
ccctactccc tgcacccage tgggcgcage ettggggcct geggtetgaa tgtatecete
                                                                       300
      <210> 270
      <211> 300
      <212> DNA
      <213> Homo sapiens
     <220>
     <221> misc_feature
      <222> (1)...(300)
     <223> n = A, T, C \text{ or } G
      <400> 270
gactcatntg cagtgttgtc agaaacaaat aataaagccc caaaagataa actagttgaa
                                                                        60
aaaactggca aaatctgtat acgtggaaat ttaccaggac agagactgaa gaataaagaa
                                                                       120
                                                                       180
aatgagtttc attgccagat catgaaatcc aaagaaactt taaagaagat gagttgtgta
aatggaactg aagggaggga agagctgcct tcgcctggta caaagcacac atgtgtatac
                                                                       240
acatgggtca agcagtgctg gtctgtggct gcctgtccag aggaatggaa atatcctttg
                                                                       300
```

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<210> 271
       <211> 300
       <212> DNA
      <213> Homo sapiens
       <400> 271
agtggctgga taaaaggatg tgtgggaaag aactgagttg aaattaggag ttagaatttt
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attctttggt actaaggaat cattgaagat tttaaaaatta gggctgacat aatcagattt
                                                                        120
gagtttggga acctatagtt tgggactgga ggaagacagg tgccagacac cagttaaaaa
                                                                        180
gctgttattt tctaagcagt agacaaaggt ttacactgac aatagctgtg gagatagaga
                                                                        240
aaagctgcga gatttcagag ttttccaagg tgtaaacaac taaattttgt gatcaaaatg
                                                                       300
      <210> 272
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 272
ggaacctact agatggacag gctgaggtgt ttggcagtga tgatgaccac attcagtttg
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tgcagaaaaa gccaccacgt gagaatggcc ataagcagat aagtagcagt tcaactggat
                                                                       120
gtctctcttc tccaaatgct acagtacaaa gccctaagca tgagtggaaa atcgttgctt
                                                                       180
cagaaaagac ttcaaataac acttacttgt gcctggctgt gctggatggt atattctgtg
                                                                       240
tcatttttct tcatgggaga aacagcccac agagctcacc aacaagtact ccaaaactaa
                                                                       300
      <210> 273
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 273
ctggttttga ttggtcagat tctttttca ctagcggcgg tttttcttt atgtcttgtt
                                                                        60
ataaagaagt atctcattgg accctattat cggaagctgc acatggaaag caaggggaac
                                                                       120
aaagaaatcc tgatcttggg aatatctgcc tttatcttct taatgttaac ggtcacggag
                                                                       180
ctgctggacg tctccatgga gctgggctgt ttcctggctg gagcgctcgt ctcctctcag
                                                                       240
ggccccgtgg tcaccgagga gatcgccacc tccatcgaac ccatccgcga cttcctggcc
                                                                       300
      <210> 274
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 274
ccacgactca tttgtttcat tcacattcct cacgtgcaac aacataatta tattttaaga
                                                                        60
aaatgtaact ttgttacatc aaaatatgtt gtctagtaaa aagttgatat tcagtagaac
                                                                       120
aaggatcatg taaataaaca totatttoac atgtacccaa aagcatttaa aaagcagaat
                                                                      180
ccagggccca gagcatgagc cagggaggag gatgtttttc ttcttttctc tatttttccc
                                                                       240
taaattgtgc aaacataggt gagtctctta acctttctgt gcctcagttt ttctacctct
                                                                      300
      <210> 275
      <211> 300
      <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> (1) ... (300)
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<223> n = A, T, C or G
      <400> 275
ccacgactca titgtitcat tcacattcct cacgigcaac aacataatta tattitaaga
                                                                        60
aaatgtggct ttgngcatca aaatatgttg tctagtaaaa agttgatatt cagtagaaca
                                                                        120
                                                                        180
aggatcatgt aaataaacat ctatttcaca tgtacccaaa agcatttaaa aagcagaatc
cagggeccag ageatgagec agggaggagg atgtttttet tettttetet attttteeet
                                                                        240
aaattgtgca aacataggtg agtctcttaa cctttctgtg cctcagtttt tctacctcta
                                                                        300
      <210> 276
      <211> 263
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(263)
      <223> n = A, T, C or G
      <400> 276
gtggcaactt gatgaaacag ccaaatgcac cagggcaggt cactttccca ttacactgat
                                                                        60
tccacaatta aaaaaaaaa aagaaaaaaa actcattgaa atagctacag ttctataggt
                                                                       120
taatttaaag cctccttttt ctactcattt ttgaaaccaa aattacattt tactatttta
                                                                       180
cataaccagt gaaaagacgt tgaaagccta cagnnnnnnn tntttggngc tctgaaaatg
                                                                       240
ntnangnnnn ntntntnnnn ttt
                                                                       263
      <210> 277
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 277
tcactacact taaaaataca agggacatgt taggcaatca gatgctttgt agaaactgag
                                                                        60
ctatttgtcg gcctggcgcg gtggcccaca cctgtaatcc cagcactttg ggaggccgag
                                                                       120
gcagtggctc acgaagtcaa gagttcaaga gcaacctggc caagatggtg aaaccctgtc
                                                                       180
tctactaaaa atacaaaaat taqctgagca tggtggtggg tgcctgaggc tgaagcagag
                                                                       240
aattgcttga atttcaggag gcggaggtta ccgtgagcca agatcgcgtc acagccctcc
                                                                       300
      <210> 278
      <211> 296
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(296)
      <223> n = A, T, C or G
      <400> 278
cctgtctcta ctaaaaataa aaaaatgacc tgggcatggt ggtgggcgcc tgtagtccca
                                                                        60
gctactcggg gcgctgaggc aggagaatcg ctcgaaccca ggaggtggag gttgcagtga
                                                                       120
gccgaggttg cacaattgca ctccagcctg gcgacagagc gagactcgtc tcaaaaaaaa
                                                                       180
aannnnnnn nnggqnaanc ntnnnantgg ggnnnccact tgccntttgc cnggnnnncc
                                                                       240
```

<210> 279

296

cangithtine ctingtittee nggnattita necectitee attittgana aaagae

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<211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 279
 ctggctcaga tgtgggatgt gtatggaaga atataaatga tggtgtggat gtcagggtga
                                                                         60
 gggaggagac aaaaccacga tgacccctag ctttgtggcc tgaactgtgg gtggctgagg
                                                                        120
 ggatcgttaa ttgaatgggg cagactgagg cttgtgagga agatcagagt ctggttcttg
                                                                        180
 acatgagatg cccttcagac atctcttcac tcaggtccaa ctagggatac agaaacactg
                                                                        240
 aatatttcaa cagcagaaat tgaatggggg gattgatagc gctggcgagg gaagcagctg
                                                                        300
       <210> 280
      <211> 300
       <212> DNA
      <213> Homo sapiens
      <400> 280
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tattcttgct tcactttacc ctccataata tgttgtacat tagtgctgat caagtttaca
                                                                       120
gagttacatt ttgctttcct aaccattcag tcaggaatta aaatatggca ttgtataaca
                                                                        180
actgggaaga agctcatagt ggatataaat tagagtagat aatgggtcac cttgatagcc
                                                                       240
tctgtttaca ttacttgtat atgggcaaaa taattattac ctatacgtgt atttaagctt
                                                                       300
      <210> 281
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 281
atetttagge teegtgtgtg aaatgeagea ageetgeeee cageageetg tgggetaate
                                                                        60
ctgagetgtt cettegttta ggtacacagg tgaccetgaa gtteecacte ggeeetetgt
                                                                       120
tttctgagtc ctgtctcctc tgtagcacag tggggattgt tctgaaccgt ggcacgcctt
                                                                       180
cttggcgagg caggctctct tatggaacca tagtctgtta cctcatttct tccaactgct
                                                                       240
ctgtccccta aatgtgtgtt cccaggtgca gtgcagcaag ggtgctcgct gttggccttt
                                                                       300
      <210> 282
      <211> 261
      <212> DNA
      <213> Homo sapiens
      <400> 282
cctgtttcca ggagatatgt gtgtccatca gcagtgataa aaatcttggg caggtgttat
                                                                        60
tgcactgttt gtatgattca gacccaccta ctctgctgga aacaagcagg ttgttgctta
                                                                       120
cttgcctttc ccaggcagaa gtggccagtg tttgggttga aaggatccag gaacatccag
                                                                       180
ctatttatga tagcatttgc ttcattatgt caagttcaac aaatgttgac ttgctggtga
                                                                       240
aggtgggaga ggtgtgggag g
                                                                       261
      <210> 283
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 283
gaaaggtggc gcgcttctca cggctgagtt gctgcgcctg cagacggaag ctccccacag
                                                                        60
gcagagetgc ttggatgtgt gagtcatgaa gccagagaag ccccgctcca tgagcagtga
                                                                      120
ctccccagge cctgtgacct ccctcctgtc ttgcagetcc tcctggcacc agtccccagg
                                                                      180
```

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qctctcctqt tggtaqttcc tqcttttctt cttggaaatt cctcgtggac ctcgagatct
                                                                       240
ttaccctaaa atagttctgt tgaatttcac cctggcaatg taaattgata gcttatcttc
                                                                       300
      <210> 284
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 284
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                                                                        60
actcagtage tacccagatt gtaatgggtg gegttaetgg etggtgtgea ggatttetgt
                                                                       120
                                                                       180
tccagaaagt tggaaaactt gcagcaactg cagtaggtgg tggctttctt cttcttcaga
                                                                       240
ttgctagtca tagtggctat gtgcagattg actggaagag agttgaaaaa gatgtaaata
aaqcaaaaag acagattaag aaacgagcga acaaagcagc acctgaaatc aacaatttaa
                                                                       300
      <210> 285
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 285
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catgtccaga tcagcaatga gtcggcaatt gacttctaca ggaagtttgg ctttgagatt
                                                                       120
attgagacaa agaagaacta ctataagagg atagagcccg cagatgctca tgtgctgcag
                                                                       180
aaaaacctca aagttccttc tggtcagaat gcagatgtgc aaaagacaga caactgaaca
                                                                       240
                                                                       300
aattacaaat gaactttctt gcacttgctt gtcgccaaat aaaagagagg cccattgatt
      <210> 286
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 286
                                                                        60
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atctgcatgt ccagatcagc aatgagtcgg caattgactt ctacaggaag tttggctttg
                                                                       120
agattattga gacaaagaag aactactata agaggataga gcccgcagat gctcatgtgc
                                                                       180
tgcagaaaaa cctcaaagtt ccttctggtc agaatgcaga tgtgcaaaag acagacaact
                                                                       240
gaacaaatta caaatgaact ttcttgcact tgcttgtcgc caaataaaag agaggcccat
                                                                       300
      <210> 287
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 287
aagtaatacg teettteate tittetttea agatattiet geattaaate ateeteagta
                                                                       60
tatttttttg aaagccaagt tttcccaaag ctcctcattt cctcatctcc ctctgtgcca
                                                                       120
ctggtttttc agttgctggg ggctacagac cctctctcta gaaagatgga catgtgaaca
                                                                       180
taagcactgc attttgcaca caatttccgt ggttcagaaa ccacctgaac ttttccttct
                                                                      240
agaggaccct gcttaaacac ttccattcta gggtgtccag cccattaaga tggccaagaa
                                                                       300
      <210> 288
      <211> 300
      <212> DNA
      <213> Homo sapiens
```

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<400> 288
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                                                                         60
 gtcctggtaa tttgagaaaa gggtagcccc ttggtatgga tagtagcttg atgacatgga
                                                                        120
 attcagggaa aagactatga tggtgtcact tgtaactgct tttgtgctgt aaaattgtca
                                                                        180
 tggattaaga agagagttgg ctgggtgcgg tggctcacac ctgtaatcct agcactttgg
                                                                        240
 gaggccaaag taaggactgc ttgagcccag gagttccaga ccaacctggc caacacagcc
                                                                        300
       <210> 289
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 289
 ttactgactg caacaacttc agattatacc tcttctactc caagtgcttt caaagaaagt
                                                                        60
cctctgccaa gacaaattca ttacgttttt tccctctacc tgtttgcctt tattctcttt
                                                                        120
tgtatttcat cttctcatct agattgaata atctttgaga gcacagatgt ttatttatat
                                                                       180
ttttcctttc catttctact cagcatgagg tgtccattga acaaacttga tgaattttta
                                                                       240
ttgcttaata tcttgctaga ggtggggaga gaggttgggg gcggttaagg aactatcagc
                                                                       300
       <210> 290
       <211> 300
       <212> DNA
      <213> Homo sapiens
      <400> 290
ccactgcgtc cctttgcgtt cagcccctcc tctggctttc agttacacca agctaaaatt
                                                                        60
teaggtteec agetgeaget etetgggtee eceggtgeec eagtgggget eceegeatet
                                                                       120
gaatgtgtgg tecetggggg tgggcacttg ggggcatect ggteactget ggeectagea
                                                                       180
ttggacccta ggagacctga ctggaactgg ctccctcccc atcagctccc agctgtcact
                                                                       240
ctctcccacc cccgggcagc tgttttgccc aagaccactg ctacctgttt acccacctg
                                                                       300
      <210> 291
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A,T,C or G
      <400> 291
aataaacgta tgtgttcata ttcgatcacc gaaatgagag ttcttaattg ctaattgaca
                                                                        60
aacgcgttag caatttcagt tagggagtca tctcccttga ttgtgttctt ttcctgtcaa
                                                                       120
ttttcataga cctaatttgc aaactcaatc ggggactaaa atttcccact gaaaatgtta
                                                                       180
aacattttag ataactgtga agatagttta tttttattcc ttgccaatct gggaatatgc
                                                                       240
ctttttnnnn nnnnnnnnn nnttnttaag tgctgtatta ataatacttt ctgaaagaaa
                                                                       300
      <210> 292
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 292
cgccagagca gcagtgggga acatettett gtetgetgga cacetgattg ggccggttet
                                                                       60
ctgccattcc ttctgcaatt acatgggttt cccagctgtt tgcgcggcct tggagcaccc
```

120

```
acagaggegg cecetgetgg caggetatge cetgggtgtg ggactettee tgettetget
                                                                       180
ccagecete aeggaceca agetetaegg cageetteec etttgtgtge ttttggageg
                                                                       240
ggcaggggac tcagaggctc ccctgtgctc ctgacctatg ctcctggata cgctatgaac
                                                                       300
      <210> 293
      <211> 289
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(289)
      <223> n = A,T,C or G
      <400> 293
ctgcgctate agcgcaaaga acctcccgac agtgccactg accccacctc ccccagccc
                                                                        60
                                                                       120
cacagetggg tetggetggg cactgaccag gaggaactga geegecaget ggaceggcag
                                                                       180
tcccctggcc cgcccaaggg ggaggggagc tgcccctgtg agagtggggg aggaggggag
qqccctaccc tqqcccctqq ccctcctqqq qqcaccacca gctcctcaag caccctggcc
                                                                       240
cgaaaggagg ctggggggcg gcggaagcga nnnnnnnttg ngacatttg
                                                                       289
      <210> 294
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 294
                                                                        60
cagagetgtg atetgeecce aggtattetg acceecaaac tggeteteaa ecatgtttae
atgatgaaaa gaagaggtga ctgttgtatc agctctaaag gcctcacttt tggtgaaatg
                                                                       120
qqacctaaat ttqattqcat acttqattac ttgctgtcaa tactgaaatt ggcacttcat
                                                                       180
aattttaata ctattqaact ttcaccataa ccctgtccta taaagttgac ttgcaaatga
                                                                       240
agaaactcta tctcttcaat attataaaat atatccaaga gtcacaacta gtgagaaaag
                                                                       300
      <210> 295
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 295
                                                                        60
ctttcccatt cacttctcta gaaagctgcc aagacagagg cagaaagaaa tggatgatag
ttotgtcaag cacacttotg ttotottaga acttagaagt gtttotaaga gaacagaagt
                                                                       120
aataagagaa acagttacqt qtqqaattca acatctttgg ttggaacgca ttggcttttt
                                                                       180
ttttcttgtt ttgatagaaa tggaattaag caaaagtagt ttttgtcttt tctgttgtcc
                                                                       240
tcaaattcca tqccttttat ttttaattta atcccgttca aatacttaat tgttatacat
                                                                       300
      <210> 296
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 296
gttttgttct cttctttqac tattaaaaag ctcagtgcca aatatttcta acatatggca
                                                                        60
agtgtttctg tgtaccttac aagtctatat ataaattttt cttctcttga cagggtttta
                                                                       120
totatattta gcaaqtcacc cotaattott ttagaataag gcagaaaata aatcaacgta
                                                                       180
aaggttgaga ccaagccaga gacagctggc caaagtagct ggttcaggga tataacctgc
                                                                       240
aagttgccaa cccagcgcat tcttctcacc cttcttccac cctacgaaag gccatatctt
                                                                       300
```

```
<210> 297
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 297
 cgacagetet ecaataetea ggttaatget gaaaaateat ecaagaeagt tattgeaaga
                                                                         60
 gtttaatttt tgaaaactgg ctactgctct gtgtttacag acgtgtgcag ttgtaggcat
                                                                        120
 gtagctacag gacattttta agggcccagg atcgttttt cccagggcaa gcagaagaga
                                                                        180
 aaatgttgta tatgtctttt acccggcaca ttccccttgc ctaaatacaa gggctggagt
                                                                        240
 ctgcacggga cctattagag tattttccac aatgatgatg atttcagcag ggatgacgtc
                                                                        300
       <210> 298
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 298
tttctccatg ttggtcaggc tggtctcgaa ctaccgacct caggtgatcc acccacctcg
                                                                        60
gcctcccaca gtgctgggat tacaagcatg agccaccgcg cccggcctcc ctgttccagt
                                                                       120
tttctataat ctgttcatat tatattctgg gtatatgtgg gtggtgtgat tatccatgtg
                                                                       180
gtcttatttt cacattcttt gcattaacta taatgtactt aatgttttaa gataagtttc
                                                                       240
attctacaaa gatgtatgta caatacctgg tatcaggtaa caatcttaaa aaaaactaat
                                                                       300
      <210> 299
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 299
cttcagcatt cagccacttc gtttcagtgg catctgtaat atactcttta atatgaagat
                                                                        60
gttgaattaa aagtcaaaat actgatgtga gttgacctag tctcaaaggg taaaagatta
                                                                       120
tttttccagg gagcaaatga gaaggttggg tgcacgagcc ttttgctgaa cagttggagc
                                                                       180
cgtgtccagg tggaggtgcc aatacagaat caggattggt gggcacacgg agaaacaggc
                                                                       240
tatggccctt gagggctgaa ccccccaggg tgagggtgca gatgctgccc ctgcttcggt
                                                                       300
      <210> 300
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 300
gctttttggg acagtagaaa ttttcacatt aatactgtaa attctgtacc atattttgac
                                                                       60
acctgctaca tctgattcaa atgcgggaaa aaataccatg tgtgcataat gaaaaatcat
                                                                       120
tcatttttcc ctttcttacc ccagcaggaa tagaaagcaa ttccaagcca ctctgcaaat
                                                                       180
gtatccaagg ttagagattc gggagctggc caacatctta caccccaaat gactgaagca
                                                                       240
tttcagtagg ctgactggct cgaaataaca atttaagaaa ggggggaaaa aacctacagg
                                                                       300
      <210> 301
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 301
gaaatggatg atagttetgt caageaeact tetgttetet tagaaettag aagtgtttet
                                                                       60
aagagaacag aagtaataag agaaacagtt acgtgtggaa ttcaacatct ttggttggaa
```

120

```
cqcattqqct tttttttct tqttttqata qaaatggaat taagcaaaag tagtttttgt
                                                                       180
cttttctqtt qtcttcaaat tttatqcctt ttatttttaa tttaatcccg ttcaattatt
                                                                       240
taattgttat acattgacat taactgctgt attttgactt tgttcaataa ttttgttctc
                                                                       300
      <210> 302
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 302
agtacccaga gttgcgagga gttttttaac tgatttagcc aggtggcaat catgagtgaa
                                                                        60
tggatgaaga aaggcccctt agaatggcaa gattacattt acaaagaggt ccgagtgaca
                                                                       120
gccagtgaga agaatgagta taaaggatgg gttttaacta cagacccagt ctctgccaat
                                                                       180
attgtccttg tgaacttcct tgaagatggc agcatgtctg tgaccggaat tatgggacat
                                                                       240
gctgtgcaga ctgttgaaac tatgaatgaa ggggaccata gagtgaggga gaagctgatg
                                                                       300
      <210> 303
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 303
accagtatca gatttgtgat taatcgcatt actgtcaagt cctcatgcag gccagtcaga
                                                                        60
cttctgtgtg tgttccctca ccttccattt aagtttcagc ctttatctat gtccttttgg
                                                                       120
gtgtctgcca tgctgatgat agagctcatc agtctttgat aaatactgtt aggtccttaa
                                                                       180
gtgattttet gtgaaatett acqcatagga tttetgtggt cagggtttga cgtctgatet
                                                                       240
tgttcgtcag atccccttgc tcaagaatgc aagtgcatta cctcttaaat tttaaaagct
                                                                       300
      <210> 304
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 304
attggagttg aaattaacat ttcaaaaqtt tttcgtattt ttttatggca gatgatttgt
                                                                        60
catttattta tattaggttt tactqcctat tgagacaacc aggtgcataa ttgattgccc
                                                                       120
tttggccata aaaatgcagt gtcatggatc ttagagctaa aaaggactgt aaaaattacc
                                                                       180
cagaacagcg tcctcagact taaccttctg caagttatgt ctgtatataa gaagattcta
                                                                       240
attgctaact gtttatactt ttctgaataa aatagttgtt tcctaattaa aaagtagcca
                                                                       300
      <210> 305
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 305
gtggaactgg ctcaggetgg attactcttg ctgetgtett getgtactgt atgecactgg
                                                                        60
gatctgaaca ctaaacattg ctaaqaaacc cacccaccac caggatattt ggaagtaact
                                                                       120
tcacatatgg aaaagttaaa gactcagtct ctgagaaaac aattggactg atgcgaatgc
                                                                       180
agttttggaa aaaaactgtg gaagatatat actgtgacaa tccaccacat cagcctgtgg
                                                                       240
ccattgaact atggaaggct qttaaaagac ataatctgac taaaagatgg cttatgaaaa
                                                                      300
      <210> 306
      <211> 300
      <212> DNA
      <213> Homo sapiens
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<220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 306
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                                                                        60
atttacatta actttaaaat atttgtatgc caaacactag ttattttgag gggatcgaaa
                                                                       120
caaatcatag cagagataag gaactttcat actttgggag gattttttt aaataactgt
                                                                       180
atgtttactc taagtagata tgtgtatgca tgcattcact tatgatatgc acannnnnnn
                                                                       240
nnnnnnacac acacacac acacacacag aaatttatgn ngcctttaan aatcttggga
                                                                       300
      <210> 307
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 307
agagggtggg gtctggccac ataggtacct ctgtggctct ggtctggggt tagacactgt
                                                                        60
tagggactag catttattgg acttgtaaag acagcacctc agaattagta actacttgca
                                                                       120
ttttagggtc tgttttatga agccaacaag tgaatgtaaa ataggctctg catctttct
                                                                       180
gagageeetg teaetgggea gtgageattt ecaaaattge agetetgtea gaatgaacea
                                                                       240
tgaatactta agaaagggaa agtaggaaca gggagcagag caaagcataa cttgctgtgt
                                                                       300
      <210> 308
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 308
cttctgttga ttggtttgtt taaagtacct aagtactacc ctttgactcc ctaccaaaaq
                                                                        60
ttcttttgtt ttttaaacaa cttttatttg tgacttactt tcttgagaag tgttcttaat
                                                                       120
gaattgcata aaatagtggt agcagcttat ttcttaagta ctttattatt tgtgctttac
                                                                       180
cattleaggt tettatettt aaccettatt tacteagttt tecatetgaa tgateetate
                                                                       240
tctaaattaa ggatttaata aatgctgcaa attgtccact ttgcaaattg tccaaaagct
                                                                       300
      <210> 309
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 309
ggctcagagg ggttatgatt cggagggttc tgccgcacgg catgggccgg ggcctcttga
                                                                        60
cccggaggcc aaggcacgcg cagaggaggc ttttctctgg gtaaagttga ggacgacaga
                                                                       120
gggtattgtg gttctgggtt gtccccaacc tccgactgtg tgtccttcag gacccgaaac
                                                                       180
catggcccac actggcagga cagtgggtcg gcttggggaa gggggttagc ttacctacca
                                                                       240
gagettgtag gggetgtgea ggtgtatgge teccaaggeg gecettttea ggtggeaggt
                                                                       300
      <210> 310
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 310
gggaccagaa catgaccggc tgggcctaca aaaagatcga gctggaggat ctcaggtttc
                                                                       60
ctctggtctg tggggagggc aaaaaggctc gggtgatggc caccattggg gtgacccgag
                                                                      120
```

```
gettgggaga ceacageett aaggtetgea gttecaeeet geeeateaag ceetttetet
                                                                       180
cctgcttccc tgaggtacga gtgtatgacc tgacacaata tgagcactgc ccagatgatg
                                                                       240
tgctagtcct gggaacagat ggcctgtggg atgtcactac tgactgtgag gtagctgcca
                                                                       300
      <210> 311
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 311
acaagaagcc atgaggccat agggagaagc tccctctccc cttcatcttc tgctccaaag
                                                                        60
gtggtagcaa gaggagtacc cagttagggg ttggagcccc catataacat cttcctgtca
                                                                       120
gaagactgat ggatcttttt cattccaacc atctcccttt cccccgatga atgcaataaa
                                                                       180
actotytyac accaycaacc attyctottt agaaatyyyt titotyatca tatygotyat
                                                                       240
gtgttatggg cagcatggat gtcttcattt gttgcttctg tttttcatct tttttgtttt
                                                                       300
      <210> 312
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 312
aaagaatcca attttagagc tgctaaaaaa ctctttggaa gcacctttgc atttcatggc
                                                                        60
teacagattg aaaactggca etecateetg aggaatggte tggttgttge ttetaataca
                                                                       120
ccqattqcag ctccatqqtq caatqtatqg aagtggaatc tatcttagtc caatgtcaag
                                                                       180
catatcattt ggttactcag ggatgaacaa gaaacagaag gtgtcagcca aggaccgaag
                                                                       240
ccagcttcaa gcagtaaaag cagcaataca tcacagtcac agaaaaaaagg acagcaatcc
                                                                       300
      <210> 313
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 313
gggtgttgga gcagattgta gttgatccac agcaaagagc atcaccaaag ccattccagg
                                                                        60
aggaactaga tccaccactt cctctgctgg gcatgctcca aaaatggttg tggcttccag
                                                                       120
agaggactec aaaagaaagc acaaaaacta gacagtggga gggcataccc aaaagccctg
                                                                       180
agtttctgaa aaaatattga aagtttctat ggtgaaatag gaagttaatg tgcttaggaa
                                                                       240
gaaaaaagtg gtaatgattc aaggaaacat aatcacacac ggttttagtt ttaatggaca
                                                                       300
      <210> 314
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 314
ggcggaggag cagaagctca agctggagcg gctcatgaag aacccggaca aagcagttcc
                                                                        60
aattccagag aaaatgagtg aatgggcacc tcgacctccc ccagaatttg tccgagatgt
                                                                       120
                                                                       180
catgggttca agtgctgggg ccggcagtgg agagttccac gtgtacagac atctgcgccg
gagagaatat cagcgacagg actacatgga tgccatggct gagaagcaaa aattggatgc
                                                                       240
agagtttcag aaaagactgg aaaagaataa aattgctgca gaggagcaga ccgcaaagcg
                                                                       300
      <210> 315
     <211> 300
      <212> DNA
      <213> Homo sapiens
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<400> 315
aagtatatat gactccactc aggggtgtaa aagcaaccca agcatcaaag tctactcagc
                                                                        60
taaagactaa cagaggacag agaaaagtga cagtttcagc taggacgaac aggaggtgtc
                                                                       120
agactgctga agccgactct gaaagtgatc atgaagttcc agaaccagaa tcagaaatga
                                                                       180
agatgagact accaagacga gccaaaaccg cagcactaga aaaaagtacc acttaccctt
                                                                       240
gcccaatttc tcaatgaaga tctaagttag gaaagacgat ggaggtggaa tcctttaaga
                                                                       300
      <210> 316
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 316
gacctatctt gatctggata gtaaagtgag gactttaaaa aaggttatta aattactggg
                                                                        60
agaaatcatg gagcacagat tcaagacata tcaacaattt agaaggtgtt tgactttacg
                                                                       120
atgcaaatta tactttgaca acttactatc tcagcgggcc tattgtggaa aaatgaattt
                                                                       180
tgaccacaag aatgaaactc taagtatatc agttcagcct ggagaaggaa ataaagctgc
                                                                       240
tttcaatgac atgagagcct tgtctggagg tgaacgttct ttctccacag tgtgttttat
                                                                       300
      <210> 317
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 317
gattgtgaca tggtgtaata aaggtataca tggtgtaata aaggtataca tggtgtaata
                                                                        60
aaggatgtgg gagcacaaat ccataggaat ttgagagttt aggaattgta tttattattc
                                                                       120
aggcccttca ctctcagact accctgctct atttgaataa tgaggcttgt ggtggtctgt
                                                                       180
ggaaaagtgg acagagtaga atttgggcag ctgctgaagg tttggtctct ggaatgagtc
                                                                       240
cacgttaccc taaggacagt aatcccaaat tgagacaaaa actttaagaa aaccaatgtt
                                                                       300
      <210> 318
      <211> 298
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(298)
      <223> n = A, T, C or G
      <400> 318
ggggtcttgg atggcttttc caccgtccct gagactgggg ttgaggggac tgacgggggc
                                                                       60
caccaccgcc cegeceteca gegeetecte ceagggtgge tgggeetect gtteteaggg
                                                                      120
atcacannnn nnnnngggn ccaaccctt ccggaaccaa ggtgcangct tangnctgcg
                                                                      180
getttetggn tgtgtgetgg ettetggget teanceteet geeceageeg teeetgeean
                                                                      240
ggcacanngg accatggggg ctgggagtcc catnanagca gtgangtggc cccqqcct
                                                                      298
      <210> 319
      <211> 277
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(277)
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120

180

240

300

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gacatggcag egggtagete etggggetga gecagaagca teactgeagt gaaagtetet

gcttacctgt ctggctcagc ttgggcaagg gctgggccat atgtgctcag ggacgtgctt

ctcttgtaag gcaggaggat agaagaggac caagaaggga gggagctgcc ctgtggtgca

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                                                                       120
agatccagca tgggattagg tactgaaatg gattagaact aaaagtcact agaatttaga
                                                                       180
aattgagaac catgagagtg gatgcaatga cttgttgctt gattgaaaaa taaattaata
                                                                       240
ataataaagg accatgagac tagcctgtta taggggttat ctccatgaac attgaatttt
                                                                       300
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      <211> 292
      <212> DNA
      <213> Homo sapiens
      <400> 325
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taaaagccag tgatgtactt gccagggttc tcagccaaga aagtggggtt gcccagactc
                                                                       120
tcaagaaagg agaagttttt ttgtatgaaa ttggaggaaa tattggggaa ccctgccttg
                                                                       180
atgatgacac ttacatgaag gatttatatc agcttaaccc aaatgctgag tgggttataa
                                                                       240
agtetaagee attgtacaag aettaacaag etgeagataa eeatgtggae tt
                                                                       292
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 326
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tcagatgtct tggtccctga atagtcctag attacttatt ttgagaattc attgttaaaa
                                                                       120
attacaggga attaaaataa ttgccttttt ttttagaggg taagagatgg gtagaagagt
                                                                       180
atgcctctga aaattttatt agtttattct tgtggagaat accaagaaaa tgtgtatttg
                                                                      240
cccattgcta aatatgatat atgccatttt gtatttattt gtcccaagtg tctttttgta
                                                                      300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 327
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                                                                       60
gagatcagct agacctgctt tcttttctcc tcagtcttgc atttccctca atacaagctg
                                                                      120
tagcctcttt cctcgtttct agtctcagaa ggaaggagag ggaagccatt ctcctctagg
                                                                      180
gactetteag teteatttag atgatagtee ettttttet acetecatat tagagatgga
                                                                      240
gctccttcct tttcctggtt cttaattttt gtcttctcat tcctgcttcc ctctcaccct
                                                                      300
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      <212> DNA
      <213> Homo sapiens
      <400> 328
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120

gtagagacag ggtttcgcca tgttggccag gctggtctca aactcttgac ctcaggtgat

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tcacccacct cagcttccca aagtgttggg attataggcg cgagccacca tggctcagcc
                                                                     180
tcatgttcgt ttttaaaact taggatggtg gctcttttac attgattggt aggaactctt
                                                                     240
                                                                     300
catattacqa qqcaqttaqc taqttqtctq tgaaataaaa tactaatgat tgaactttct
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      <213> Homo sapiens
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ccaggaggca acaggcgaaa ctcaacagca aaagactaca ccattctaga ttgcatttac
                                                                     120
180
tatgattgcc agactgattt ccqattctac tggatgcatt caaagttacc agaagaagaa
                                                                    240
                                                                    300
ggactgggag agaaaaccaa gcttaatcct tttaaatttg tggggctaaa gaacttccct
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      <212> DNA
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acgtagtgga ccttttcagg ccagcatttt ttccttgaaa acctggagca tgtatccatc
                                                                    120
                                                                    180
ttatagcaga gatcactttc acaatgtttg ggctcttgat ttgaattgat gatgtaatga
gecetetate cagattgtaa etaattaete tgegaattga etggatteea eaccetteta
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      <212> DNA
      <213> Homo sapiens
     <400> 331
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tecaaceaga ceaqeetete tgeeetetgg ettttttaga teaetggeat ggtttetgee
                                                                    120
                                                                    180
tactccaggt qccagtatta ttttgtgaat gttttttttc ttcatatcta ctcatcttta
tactactttc ctcgtaaaag gaaactagag aacatgatct taaatgaaaa ccaacgatca
                                                                    240
cttgccagaa agaacaggta actaggcttt gaaaaaataa gttagaggag atagcataat
                                                                    300
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     <213> Homo sapiens
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tecetaagaa teteaaactg attittaaaa ateeggtaaa ttagaagggg ceetegetat
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tttctgtgtc agtcttcatt ttaaatatgg atacaaaaag gatacgccga gccaatcaaa
                                                                    180
gacaagcttt aactttactt tgaagtgttt ctgaaatgat aaaatgtagc cctagcccc
tgccctcaat tgtaaagtga gcaaccattg ctagtaattc tttaatgtgt ataaattcaa
                                                                    240
tttcaggtat aacaaatgtg atcatgacat gaaaatattc tagaatagat actgtattaa
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79

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cccaaaatgt tgcttttcat tctatgtcaa taatttaagg tggaatttct ctcacctgt
                                                                       120
ggagatgaaa gtggcaaaag gttgtcccag cagtgttggg ggatggggtg tgcacatcat
                                                                       180
tcttttgggg gtagatgacc tgctggctgg tgggcttttc tccaggacta ctgcaggtag
                                                                       240
agaccetetg ggettgtgtg gagtgggage ageegtgttg ggactatggg gaggagetgg
                                                                       300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
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agcagccaag agacagagga ccaggctgga gccagtgggc acgcaggagc ctgcctggga
                                                                       120
aaagccgggg ggcaaggctg gcatgggaat gaacacctgc tggtgacacc tctctgagct
                                                                       180
tcagttccct taactagaaa aatagaacag gcccggtgcg gtggctcata cctgtaatcc
                                                                       240
cagcactttg ggaggctgag gcgggtggat catgaggtca ggagatcaag accacctgg
                                                                       300
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      <211> 300
      <212> DNA
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      <400> 335
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teeggteeet eeaggteage aggetgeeea geageggega ggetgeagee aegeeeacea
                                                                       120
tgtccatgac cgtggtcacc aaggagaaga acaagaaggt gatgtttctg cccaagaaag
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cgaaggacaa ggacgtggag tctaagagcc agtgcattga gggcatcagc cggctcatct
                                                                      240
gcactgccag gcagcagcag aacatgctgc gggtcctcat cgacggcgtg gagtgcagcg
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      <212> DNA
      <213> Homo sapiens
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atggatetee ttaccettgg cetetgaate atattttgge etateaaaaa cagtgggaag
                                                                      120
tcaaacgtaa gatgaaagct attggatggg gaaagaagac tctggaccag gtcttagagg
                                                                      180
atgtagacca gtgctgtcaa gctctctctc aaagactggg aacacaaccg tatttcttca
                                                                      240
ataagcagcc tactgaactt gacgcactgg tatttggcca tctatacacc attcttacca
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      <211> 300
      <212> DNA
      <213> Homo sapiens
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cattttttcc ttgaaaacct ggagcatgta tccatcttat agcagagatc actttcacaa
                                                                      120
tgtttgggct cttgatttga attgatgatg taatgagccc tctatccaga ttgtaactaa
                                                                      180
ttactctgcg aattgaatgg attatacacc cttttaatat tttacttttc ctcttttatc
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aactctcatt ctcgctgcca tgatcaatgg accaactatg cttataacca caaatggtga
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<210> 338

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      <213> Homo sapiens
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                                                                        120
acagtaaacg tgtctgtcct tgatttacag agtagctaca ttcctaggaa atccagggta
                                                                        180
cattaaaact caccatgtta cccaggctgg tctcaaactc caggcctcaa gcaatcctcc
                                                                        240
tectgtetee acacagaegg ettetgeaeg tttgngaate tacaggneae teettgea
                                                                        298
      <210> 339
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 339
gcagagagaa gggccgttct cggctggtat caggcccaag agagtcaaca aaggggggac
                                                                         60
gaaagggaga cagggaagag aacagtggtg gggctgtaag ttgacctcca ggtggcagaa
                                                                        120
aataaagttg gaagaattga ctgggacaga cagccagggc cctgcaggaa gggcgggaga
                                                                        180
ggaageetge ggacacetge cetttgtgat tgaacegcag acaceaggee tggeggggte
                                                                        240
gettgeetee getgeecaag etaaggetee getaagetgg teetgagaac ataetteatg
                                                                        300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
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aggecagaag agacteatag gageggetg cetteegeet ggggeteeet gtgaeetete
                                                                        120
agteceetgg ceeggeeage eaccqteece ageacceaag catgeaattg cetgteecee
                                                                        180
ccggccagcc tcccccactt gatgtttgtg ttttgtttgg ggggatattt ttcataatta
                                                                       240
tttaaaagac aggccqggcq cqqtgqctca cqtctgtaat cccagcactt tgggaggctg
                                                                       300
      <210> 341
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
     <221> misc feature
      <222> (1)...(300)
      \langle 223 \rangle n = A,T,C or G
      <400> 341
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gttatgggtg ggcgacaggt tgatacagtc ttagaaaaag caggtaatat caaaggattg
                                                                       120
gaaagetage atgeatgeee tettacetgg gtatetteee eettttttee ttttaaacte
                                                                       180
ttgagcctcc tataacagaa ggattatgtg cttcaaacct tcttntttna ctgngccatn
                                                                       240
aagtgggctn gngcccaaaa tatttacttg canaanatcn gtnactggct taaatacttc
                                                                       300
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<210> 342
      <211> 300
      <212> DNA
      <213> Homo sapiens
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gcgtagagag gctgaaaatc taactagggt ggaagcagcc aggcaggctg gtcctaatgt
                                                                       120
tgggagttgt tcagatctgg tggagaggtc attacttata gagttattaa tttatacccc
                                                                       180
accttaattg caaagagatt caaagcagta agccatcact ttagaattta atgttctgtt
                                                                       240
ttccttttta tttactcatt cagcagctat ttcaatgcct gctgtgtgcc aggtgctatt
                                                                       300
      <210> 343
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 343
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                                                                        60
ctcagatttt tattttctag aatgaagata cttaccccc aattgctgag atatttgaat
                                                                       120
aaaagtatat gtgaaggatt ttgtaattat agaatgtcct acaaatatga gtagttcgtt
                                                                       180
tgctactttt ttggcgaaga aaaatattgg gatgcatgaa taatatctac ctaaggtacc
                                                                       240
taaggttgta ttcatcccat ttattgaatg ccaaggatat accagctact gctccagatg
                                                                       300
      <210> 344
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 344
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gagaaagata aattgagact agaataggta gactttaaat gcctgtctgg tttaggtatt
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tgaactttca aggtgtggta aatgtttgag taaaggaata atgtgtccaa agattattat
                                                                       180
ggaattgtct ctctgcatac ctctatcgct gtttgtcaca gctgtgttct tatgtgactg
                                                                       240
attetteetg aagattagaa acteeteaaa gaetggttat tagagettat tetteattat
                                                                       300
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taaaatgaat attttttgtt ttgttttgtt ttattttttt gagacaagtc ttgctttgtt
                                                                      120
gcccaggctg gagtgcaatg gcatgatctt ggctcactgc aacccctgcc ttgcgagttc
                                                                      180
aagtgattet tetgeeteag eeteetgagt agetgggatt acaggegete accaccacae
                                                                      240
ccagctaatt tctgtatttt tagtagacac agggttttac catgttggcc aggctggtct
                                                                      300
      <210> 346
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 346
agaaatgtag cacaaaatgg agaagtcgtt caaccttgac cctgtcagag ttcttatttg
                                                                       60
aaagccacat tgctgctagt gttcttattg tgttttggat tctgtttctt gccctttttc
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120

```
ttattagcca agtagtaact taaggaagca gataagaaca atgaattttg gactaaagga
                                                                        180
agtaagaaca atgaaccaga aatcagatag gaatgtggtg ataattgtga catggtcaca
                                                                        240
tagtcatagt gggageteat gtgagtaaaa atagettgat acatttgtta agaggettgt
                                                                        300
      <210> 347
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 347
caaagccgtc ccttcaaatc cgtctttgtg cccactgcca tagtcaaccc cgtgagaagc
                                                                        60
acageeggee etgggaettt aggacaaggg tetettegga aagggeggag cageatgaga
                                                                       120
aagaatggat coctgoagag accortocag toogggatoo coactotogt ggtaggotoo
                                                                       180
ctcagacgca gccccaccat ggtccttcgg cctcagcagt tccaattcta ccagccacag
                                                                       240
gggatcccct cctcccctc agccgtggtg gtggagatgg ggtccaagcc tgccctcacg
                                                                       300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 348
actectacte ageceatgga ecegatgage tggacetgea aaagggagaa ggegteaggg
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teetggggaa gtgeeaggae ggetggetea ggggegtete ettggteace gggegagteg
                                                                       120
gcatcttccc aaacaattac gtcatcccca ttttcagaaa gacctctagt tttccagact
                                                                       180
cccggagccc tggtctctac accacatgga cgttatccac ctcctctgtg tcctcccaag
                                                                       240
gcagcatttc agaaggtgat ccacggcaaa gccgtccctt caaatccgtc tttgtgccca
                                                                       300
      <210> 349
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 349
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catctttagg cgacaaaggt tggggttgtg gttacaqaaa tttccaaatg ctactttcat
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cattattaca aaatgatgct tacgacgatt gcttaaaagg tatgttgatt ccttgcattc
                                                                       180
caaaaattca atctatgatt gaagatgcat ggaaggaagg ttttgatcct cagggggcct
                                                                       240
ctcaacttaa taacaggtta cagggaacaa aggcctggat tggagcatgt gaagtatata
                                                                       300
      <210> 350
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 350
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                                                                       60
tggatacaaa aaggatacgc cgagccaatc aaagacaagc tttaacttta ctttgaagtq
                                                                       120
tttctgaaat gataaaatgt agccctagcc ccctgccctc aattgtaaag tgagcaacca
                                                                       180
ttgctagtaa ttctttaatg tgtataaatt caatttcagg tataacaaat gtgatcatga
                                                                      240
catgaaaata ttctagaata gatactgtat taaatattgc catgtttaca atatgtaata
                                                                      300
      <210> 351
      <211> 251
      <212> DNA
      <213> Homo sapiens
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      <223> n = A, T, C or G
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tggggtgtgc tggggttggt acccgagcgc cttcccctca cctcaaccag agaagagcat
                                                                       120
ccggttgctt tttaaagctt ttagcctgcc ctagcaagga caaagcatgt tagattagag
                                                                       180
atgettetge tgategeagg ggttettatt tgaaaacate tatgatgggg gaggtgnnnn
                                                                       240
nnnnnnnn n
                                                                       251
      <210> 352
      <211> 300
      <212> DNA
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      <400> 352
atccagatgg gatacctcta aacacgaaaa gaaagaagat tccattagtg aatttttaag
                                                                        60
tttggctaga tcaaaagccg agccacctaa acaacagtcc agccccttag taaacaaaga
                                                                       120
ggaagagcat gcaccagaat catccgcaaa tcagacagtc aacaaagatg tggacgcaca
                                                                       180
ggctgaagga gaagggagcc gcccatccat ggacttattc agggccatct ttgccagttc
                                                                       240
ctcagatgaa aagtcctcat cctccgagga tgagcaaggt gacagtgaag atgatcaggc
                                                                       300
      <210> 353
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 353
tgtctacact ggccgagtct ctgggtctgt ctacactggc cgagtctccg actgtctgtg
                                                                        60
ctttcactta cactcctctt gccacccccc atccctgctt acttagacct cagccggcgc
                                                                       120
cggacccggt aggggcagtc tgggcagcag gaaggaaggg cgcagcgtcc cctccttcag
                                                                       180
aggaggetet gggtggggee tgeteeceat cececeaage ceaeceagea eteteattge
                                                                       240
tgctggtgag ttcagctttt accagcctca gtgtggaggc tccatcccag cacacaggcc
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 354
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cgtagccagg attggggaga gcccttgtct ctggtcagcc ctggagcatg ggatcgtggg
                                                                      120
aaagaggagg gggaccaggc ccagggcagg ggtcagaggc ccaggccctg acttcggctt
                                                                      180
cccagagate teteegeett agttaagage atgtgteggg aaatteetea gagtgeteag
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      <400> 355
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teggtacate ateaaaaaag aettttttgg aetggataet aattetgega aaagtaaaga
                                                                      120
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tgtataggca tctggtgttt cagcatacat aactqaagca tgtgaaacag tatcatcctc
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gttagtagag gaaaaccaaa accetttett cegtcaaaat tggatttgta attaaattgt
                                                                       240
aagcctcgta ggatgtatgt tggaatttta agtctttcct ttggttctat gcaaataaaa
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      <212> DNA
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      <400> 356
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                                                                       120
cacggacctc ctttggctct ctgacagaca gcagtgaaga ggcactggaa ggaatggtac
                                                                       180
gggggctgag gcagggtggc gtgtccctcc taggccagcc acagccctg acccaggaac
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agtggcggag ctctttcatg cggcgcaacc gagaccctca gctcaatgag cgagtgcacc
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ggccctggga acagagtttt tgacgctttt gaccagagag gaaagcgaga atttgaaaga
                                                                       120
tatggtggga atgacaaaat agcagtcaga actgaagaca acatgggtgg atgtggagtt
                                                                       180
cgaacctggg gatcgggtaa agataccagt gatgtggagc caactgcacc gatggaggaa
                                                                       240
cccacagtgg tggaggagtc ccagggcacc ccggaagagg agtctccagc caaagttcct
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      <212> DNA
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      <400> 358
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                                                                       120
actaacttgg gatgaaaatt aagttaaaac cagtagaaaa tttcatccta tgttttggtg
                                                                       180
gtaaaagaag caaatgaaca aatqaataga ggctgccaaa cagttgtctc accaactgtt
                                                                       240
cegactaget aacaagatta getaggteat acetagtegt aaaagaatae tataagaact
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      <212> DNA
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      <400> 359
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acttctatgg taaactaatt ttacatacac aaatcttttc attttctgaa cttcctttat
                                                                       120
ggetttactg teaccecact agtatttgat gtettageta ttaactaatt cetgateatt
                                                                       180
tcacttgtca catcaggaac cctatcctct tagttctccc attgagattt cactgctgga
                                                                       240
ctaagattat tettgatteg tagteattgg tttetgttte catteatttt cageactgat
                                                                       300
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      <211> 293
      <212> DNA
      <213> Homo sapiens
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      <222> (1)...(293)
      <223> n = A, T, C or G
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cccacctcct tttatcccca tgagacacag tttcccactg taatcagggt aatatqcatt
                                                                        120
tgtaagttct gatatgtgat tcatttatgt gatggcaaag ataagtctgt cttgaatgca
                                                                        180
ggtactannn nnnngtnnac annttatnen aatnteaane aaenntaatt netaetaenn
                                                                        240
ngtnttctga nnaagangnn ntnntcattt agatntngnn accntnctga tta
                                                                        293
      <210> 361
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 361
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                                                                         60
acagatggac tgataacata ttcgcaataa aatcttgggc caaaagaaaa tttgggtttg
                                                                        120
aagaaaataa aattgataga acttttggaa ttccagaaga ctttgactac atagactaaa
                                                                        180
atattccatg gtggtgaagg atgtacaagc ttgtgaatat gtaaatttta aactattatc
                                                                        240
taactaagtg tactgaattg tcgtttgcct gtaactgtgt ttatcttttt attaatgtta
                                                                        300
      <210> 362
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 362
ccaggtaget etcaaactte etecteaate cacteeteet titacattea tggaaaggga
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gggggaaaga agcccagtct ccaaggtcag ccagttacac cagaagcagt gccaaccaga
                                                                       120
atatgageee egeeetggga cagggeacag ageeeteact ageatgetgg agagggeea
                                                                       180
ccccaggtcc tgggtgtccc tatacccagc tgcttctctt caagctggtg aagccctgc
                                                                       240
cactgccacc acctcctccc ctaccttggg actttgtgtt taatcctgga agtcacaatt
                                                                       300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (300)
      \langle 223 \rangle n = A,T,C or G
      <400> 363
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cgttttcaga aggaagacag cctcctccag gagcatctta cccgacctct tgtcaccgta
                                                                       120
ccaaatggcg atccgagcaa aaagactgga agagagccga gcggcggcgc tccgagagct
                                                                       180
ccaggagaag caggctctga tggagcagca gagacgagag aaaagggcac tgcaggagtg
                                                                       240
gagagagcga gcccagagga tggagaagag gannnnngag ctcagcaaac tcctgcctcg
                                                                       300
      <210> 364
      <211> 262
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<212> DNA

<213> Homo sapiens <400> 364 cttcaggaac tagatgtata tgcacaaggg attgagttta cactaaaact aggaaatgga 60 gttttcaatc tatgttcttg cctcttcata cttttattta ttttttgtca tcctgcctta 120 tactgggcta acaatgagat aaaataaaaa tacctttgaa tactcttttc cctttcatgc 180 atttaaagcc atggaggaac tagaccatta gctgttgccg tcacatgctt agacaccagt 240 ttacttagcg tgttatgacc tt 262 <210> 365 <211> 300 <212> DNA <213> Homo sapiens <400> 365 agttggagaa cattatgctg gagagagaat ataaagaaag ggagatgttg gaaacttctc 60 aagctgctgc tctgtttctg cccaaccgca tggtgcctgg acctgactac aattcctaca 120 aaagtgccta cagccccagc ccagtggaac caccaagcaa ggacttctgt aattttttgc 180 ccacctgcct tgatttaacc atgcagtatt cagggtctgg gaatatggaa ctaatttctt 240 ctaatgtcag cgtggccaca acttatatac agtatccctt gtcctcaaga tttttagttt 300 <210> 366 <211> 300 <212> DNA <213> Homo sapiens <400> 366 gatgctgttg tgacatctcg gagtgaggat gatgagacaa aagaaaaaca agttcgagac 60 aagaggagaa aaacccttgt tataattgag aaaacctaca gcttactcct tgatgtggag 120 gactatgaaa gacgttatct cctaagtctg gaagaagagc gacctgccct aatggatgac 180 agaaagcaca aaatttgtag catgtatgac aacttaaggg ggaaattgcc tggacaagag 240 aggcctagtg atgaccactt tgtacagatc atgtgtatcc gaaaagggaa gagaatggtt 300 <210> 367 <211> 300 <212> DNA <213> Homo sapiens <400> 367 cagtectece cacacteaga gatetgtggg gaageteege ceagecacae teettgggat 60 aatactagcc ggttctgcct gattcctttt ccccggagcc agcctagggg gcccgggact 120 cctctagtga gccttgactg ttaggtaaga gacaggaagc agacaagcca agaggttgct 180 gcagetgeec ccaggaggaa acgggcagca gggagtgtgg cccageceec actgtaceec 240 tccaggggcc cgagcccttg ccagcccaat gacaccttga agtcaccact tttcctttct 300 <210> 368 <211> 300 <212> DNA <213> Homo sapiens <400> 368 attttgctgg acactcagac acaatttaga gtatttatat ataacttgaa aacagtaaca 60 tttccaaaaa ccgatgaacc ccaccctgtc ccaaggaatg attggtatgt atgtgaagtt 120 cattttctga caaaaataat tacgttccac ttaggatgca caaccatgct gtcctgtaga 180

240

300

gaagtcacaa gttttgtgag aatttttaaa ctgatgatgt ttatttccat ggtaacatga

gtatacattt taccttctat tgtagtgatg aatcacaatt agtctttttt tataggttgg

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<210> 369
       <211> 294
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       <213> Homo sapiens
       <220>
       <221> misc_feature
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       \langle 223 \rangle n = A,T,C or G
       <400> 369
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 caaatatttt tagatccatt taaggagttt tgaagtgcct aagatgacct atttgtcagt
                                                                        120
ggtgcaaaat taattctctt cttttttgag ttgtagtgaa tatgcaattt ctgtgttccc
                                                                        180
cttccaccct ttaaatctta ggatgacaag ttataaagaa agaagatctt tgtctgggac
                                                                        240
ccccaaaggg atcctttctc taangnctct gacagagggt ccaggaccag acct
                                                                        294
       <210> 370
       <211> 241
       <212> DNA
       <213> Homo sapiens
       <400> 370
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                                                                         60
ttggggtggg ctggggttgg tacccgagcg ccttcccctc acctcaacca gagaagagca
                                                                        120
teeggttget ttttaaaget tttageetge eetageaagg acaaageatg ttagattaga
                                                                        180
gatgcttctg ctgatcgcag gggttcttat ttgaaaacat ctatgatggg ggaggtgtgt
                                                                        240
                                                                        241
      <210> 371
      <211> 297
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(297)
      <223> n = A, T, C or G
      <400> 371
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ggaggtgggc tggagcaggg gacgaggtct tgggagtctg tgaggccact ctggccgagg
                                                                        120
gtgtgggttt getteeteag etgaagggat acatggaaac ecacetttge atagtteagt
                                                                        180
aggggttacg gtgtggttca tggaagccat ttctgtgggt tgnnnnnnn nnnnnnnnn
                                                                       240
nnnnnnnnn nntnntnntn ncncagaatn atgagntcaa nanannagcn tgatatg
                                                                       297
      <210> 372
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 372
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taacagtact gttttttcta atcctgaagt ctgatattta tgactcatta gcaggaatca
                                                                       120
aaactagtga tcagtagaac actttcaaaa taaaaatttg gaatgcagac ttttatgaaa
                                                                       180
atttaaaagt gctccttaac agaatatcat gggttttcct ataaaacttc tttaagtatt
                                                                       240
```

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gtaattccag tctgccccaa cttaaaaaaa aattcttatt aatatgtcag tcattaattg
                                                                       300
      <210> 373
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 373
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actggactta ggaatgtttt tgccacactt aacagatgtc caaaaagact cctgactgct
                                                                       120
gagtcaacag ctctttatac cacctttgat caaatattgg caaaacactt gaatgatggt
                                                                       180
aaaatcaatc agetteetet ttteettgga gageetgeta tggaatttet etgggattte
                                                                       240
ctgaaccatc aggagggtcc ccgcataaga gatcatttaa gccacgggga gatcaactta
                                                                       300
      <210> 374
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 374
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aaggccctgt acagtgaccc taaatctttg gaaacatctg cttttgtcaa gtcctacaag
                                                                       120
aaccttgctt tctactggat tctgaaagct ggtcatatgg ttccttctga ccaaggggac
                                                                       180
atggctctga agatgatgag actggtttgg ccttggggca cagagctgag ctgaggccgc
                                                                       240
tgaagetgta ggaagegeea ttetteeetg tatetaactg gggetgtgat caagaaggtt
                                                                       300
      <210> 375
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 375
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gggtcaggag gcctgggtgc ggaaactgaa gtggccagaa ctgcctaaat tcagtcagct
                                                                       120
gaagtggaag gccctgtaca gtgaccctaa atctttggaa acatctgctt ttgtcaagtc
                                                                       180
ctacaagaac cttgctttct actggattct gaaagctggt catatggttc cttctgacca
                                                                       240
aggggacatg gctctgaaga tgatgagact ggtgactcag caagaatacg atggatgggg
                                                                       300
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     <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 376
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                                                                        60
                                                                       120
gggtcaggag gcctgggtgc ggaaactgaa gtggccagaa ctgcctaaat tcagtcagct
gaagtggaag gccctgtaca gtgaccctaa atctttggaa acatctgctt ttgtcaagtc
                                                                       180
ctacaagaac cttgctttct actggattct gaaagctggt catatggttc cttctgacca
                                                                       240
aggggacatg gctctgaaga tgatgagact ggtgactcag caagaatagg atggatgggg
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     <400> 377
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                                                                         120
 ctcaaactat agtaacttca tttttaaaag ttactagaat ttggtatcct gatttatatt
                                                                         180
 gcagtgtttc aaaggtgtca ctgtcagaca aatagaaaca ctgccaactt ggtgtaactt
                                                                         240
 aagctttcat ttaactaaaa cattcttttc ttgcaaaact tatttttcat gatcattttt
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       <211> 300
       <212> DNA
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       <400> 378
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gttgatcaat gaccattttt gctcagcatg gagaaacagt gccctgcatg aagggtagtg
                                                                        120
agaataaaaa ggatcttacc acctttatca tgagggtggc tttgctctct ccattccaag
                                                                        180
 ttgttctctg ttctagaaag cagatgtagt agacatctac tgtttttgcc taaacagaat
                                                                        240
ccctttttcc ttttttggt aaaagtactc atccctaata ttacattgtt ctggaaggac
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                                                                         60
aataaatcaa ttgtctttca ttgaatcaca cggacaacct gctggcttct gctgacgact
                                                                        120
ctggggcaat caaaatccta gacttggaaa acaagaaagt tatcagatcc ttgaagagac
                                                                        180
attccaatat ctgctcctca gtggcttttc ggcctcagag gcctcagagc ctggtgtcat
                                                                        240
gtggactgga tatgcacgtg atgctgtgga gtcttcaaaa agcccgacca ctctggatta
                                                                        300
      <210> 380
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 380
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                                                                        60
aagaaatcaa ttgtctttca ttgaatcaaa cggaaaacct gctggcttct gctgacgact
                                                                       120
ctggggcaat caaaatccta gacttggaaa acaagaaagt tatcagatcc ttgaagagac
                                                                       180
attccaatat ctgctcctca gtggcttttc ggcctcagag gcctcagagc ctggtgtcat
                                                                       240
gtggactgga tatgcaggtg atgctgtgga gtcttcaaaa agcccgacca ctctggatta
                                                                       300
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      <211> 296
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(296)
      \langle 223 \rangle n = A,T,C or G
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gaactgctgg ccgagcccgc tgggagtcta gaaagagaaa atctgtttct agacctcagt
                                                                        60
tattttccca tttttggttg ttttgaagca gtaacatttt tctcagtgca catgcaattt
                                                                       120
gggttttaga gaagatggcc accagctggc ttcctagata ttttaaactt ttgttcttta
                                                                       180
```

```
atatgctgtc catggctgag tttattagta catgggctta gcgaccacac aaatattcta
                                                                       240
ttacqaaact qttncagaaa taaattnqca ctgtncattc ntctggcctc gctggt
                                                                       296
      <210> 382
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 382
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                                                                        60
caaaatcaat tgcctatgct caccagatcc ctgataaatt cccatgaagc cacctgaaag
                                                                       120
                                                                       180
gtggtaaaag caaggtaaaa cgtggtgaaa gcaaggtaaa gaaggtagat ttcacaattt
tqttttttaa aaaqqqqaat cttccctqaa ttctttgagg tactaagtac gtggtttaat
                                                                       240
gcatattttc attcttgtta gcagtttaaa aataatgttt cagagactgt attcacgatt
                                                                       300
      <210> 383
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 383
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                                                                        60
                                                                       120
atttaaaagc tgagcttttt atcagaaagc ttttttgatg ttttaagtgt tatgtgactt
qttqaacttt ttaaaaaqtg ctacttttaa aatcccagat actctgaatt ttagaaaaca
                                                                       180
                                                                       240
aactaattct gattgtgtcg tgcccaagta cccttttttt ttaatgaata gggaccaatg
ccacattqct ttttatattc ctttctttat taatgatgcc aaaaccaaaa gtagctgtgt
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      <210> 384
      <211> 300
      <212> DNA
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      <400> 384
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                                                                       60
taggtteetg etttgtettg ateteaatee attetaaete etgatgteat ttacegtgtg
                                                                       120
agatettagt acaateatga aaagaatatg agcatttate aaaactetet gacatetgta
                                                                      180
                                                                      240
tqtttaqaaa tqaacttaca caqcaaaata tgatttcctt gcacttattt aatttttcta
acttcaattt ctacctatgt gtctctgcca gtttgacctg attcagacac ccagaacttg
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      <210> 385
      <211> 300
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attgatggag gtttttaggt agattcatag aatataacgt atctaccaaa gattccgttt
                                                                      120
tcaagggatc taqaaqatqt tagtgcacac gcaaaaacca gacaaacgtc tctacacgga
                                                                      180
                                                                      240
taaaggcaca tatacaatta tgcacacagg gaagggcata cactctattg tgggcacaga
atgacatgca attatggaca cacaaaaaca catgcaccca attatggaca ccaaaatata
                                                                      300
      <210> 386
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      <212> DNA
      <213> Homo sapiens
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<400> 386
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 ttactatgat tttctcttag tgcctctcat ttctgatgct ttctgtccta tgaggtcagt
                                                                         120
 ctacttacta gttagtattc tatattaata agtatgccaa atgacttaac tcctccagaa
                                                                         180
 atgttattcg ttaaaagatg agatgtgctg agacaagagg atcgcttgag tccggaaggt
                                                                         240
 tgaggetgtt gtgtgetata attgggeetg tgaatageea etetgtteea geetgggeaa
                                                                         300
       <210> 387
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 387
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                                                                         60
 ggaacaagga caatgtcgcc cgcgtgcggc gtgacgaggc ccaggcccgg gaggaggaga
                                                                        120
 aggagegtga geggagggtg etgetggete ageaagagge eegtacagaa tteetaegga
                                                                        180
 agaaagccag acatcagaac tcactgcctg agcttgaagc agcagaggcg ggagccccag
                                                                        240
gttctggccc tgtggacctg tttcgggagc tgctggagga agggaaagga gtgatcagag
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       <210> 388
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 388
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gccactgatg gagatgcggc tccgggatgc gcctcagcac ttctatgcag cactgctgca
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gctgggcctc aagtacctct ttatccttgg tattcagatt ctggcctgtg ccttggcagc
                                                                        180
ctccatcctt cgcaggcatc tcatggtctg gaaagtgttt gcccctaagt tcatatttga
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ggctgtgggc ttcattgtga gcagcgtggg acttctcctg ggcatagctt tggtgatgag
                                                                       300
      <210> 389
      <211> 300
      <212> DNA
      <213> Homo sapiens
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aatgagtcgg caattgactt ctacaggaag tttggctttg agattattga gacaaagaag
                                                                       180
aactactata agaggataga gcccgcagat gctcatgtgc tgcagaaaaa cctcaaagtt
                                                                       240
ccttctggtt agaatgcaga tgtgcaaaag acagacaact gaacaaatta caaatgaact
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      <400> 390
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                                                                       120
acaaagatgt caggttacca aatcatttgc tagtagatcc taacaatatc acctatagga
                                                                       180
aactgaacgt agcctttaaa cattaagtga tgataatgga tttggccggg cgcggttgcc
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<210> 391

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attaaaacaq tttaqtaqcc ttcaqttttq tqaaaatagt tttcagcaca gaaactgact
                                                                       120
tetttagaca aagttttaac caatgatggt gtttgettet aggatataca etttaaaaga
                                                                       180
actcactgtc ccagtggtgg tcattgatgg cctttagtaa attggagctg cttaatcata
                                                                       240
ttgatatcta atttctttta accacaatga attgtcctta attaccaaca gtgaagcact
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 392
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ccagttatca tacatttgac tttcaaatgt atgaaccagc atgtacccca tggatttaat
                                                                       180
cttatctacc ccgtggattc aatcttctta tcagaaggtt cttttatgtc aaaaaacctg
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      <211> 300
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tgtcggccct gctgcgagcc cacacgcccc tccacatggc tgccctcctc ctgcttccct
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ggctcatgtt gctcacaggc agagtgtctc tggcacagtt tgccttggcc ttcgtgacgg
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acacgtgcgt ggcgggtgcg ctgctgtgcg gggctgggct gctcttccat gggatgctgc
                                                                       240
tgctgcgggg ccagaccaca tgggagtggg ctcggggcca gcactcctat gacctgggtc
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gttctgctgc ctccggaagc aggcacaggc ccagccacat ctgccaccag cacggcagcc
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ctgcgacgtg gcagtcatcc ctatggacag tgacagccct gtacacagca ctgtgacctc
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gtgctaacce ceggetetee cetgeeceae eteacecaee cagagaagea cagaceeege
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caggggcagg ggcccaccgc acaccettgt cocgggcctg totgggactg gccttcccgg
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240
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                                                                     120
ctttcctatc ttattagaaa gattagaatt gcttttctag agttccagta atggaatcat
                                                                     180
acagtgtcta agtctgtttg tggtgctgta acaaaatacc tgagactggg taatttataa
                                                                     240
attataggaa attatttctc acagttctgg atgctgaaaa gtctatgatc aaggcactag
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 397
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taacttaaaa aaactacata taagatagtt ttgcctgttt tcaggtttct tttcagtgtt
                                                                    120
ttaggtattc agtatttaaa tcacaaaatt tgtgatttga acattttttt cttccttcat
                                                                    180
gagattttaa gtggattgat acttgctttc cattctgtcc cgatgtctga cctttgtaat
                                                                    240
gtaaagaaga acattttgtt taattgagag aagtctgctg tgttcttgtt gatagaggac
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      <211> 300
      <212> DNA
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                                                                    120
taaactatac ctcttcaaga ggtatcctgt tctgtaagat cagatgtttt tattgcaggt
                                                                    180
caatataata ctgccagaga cagaaaatac ccccttatca gtcccttaqt gcctctttcc
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tgtttgtggc atggtgagaa aacccatgct gaaaagattg tactttgtga tccccctcag
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     <213> Homo sapiens
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gagtgcaggc gcatcgaaaa cttgtggaag aacagaatgc agagaaggcg aggaaagccg
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aagagatgag geggeageag aagetaaage aggeeaaaet ggtggageag tacagagaae
                                                                    180
agagetggat gaetatggee aatttggaga aagageteea ggagatggag geaeggtaeg
                                                                    240
agaaggagtt tggagatgga tcggatgaaa atgaaatgga agaacatgaa ctcaaagatg
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     <212> DNA
     <213> Homo sapiens
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gggagaaaag tacagtgctg ttacgtggca ctgtacagtc atgtgccacg taacagcgtc
                                                                        180
tgggtcagtg acggacactt acctgacage ggatecacaa tattetegtg cagtgtgttt
                                                                        240
ggaatcctcg tctgggctct cgtcgttggc cttgtagatc aagtagggga agtgagtgat
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      <211> 300
      <212> DNA
      <213> Homo sapiens
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tgctgacacc cagtaggaag tatcccattt ttatcaggaa agtcagtcac gcgtagggat
                                                                       120
ggtgaggaga cgcgtaggga tggtgaggag gggagaggag ggagacctgc tggtgccctt
                                                                       180
gcaccagggt gaggcctgac tcacgctgct tccccccaca ggccctgctt tgcttgcctg
                                                                       240
ctttttccag aatcgatttt gcaagcttca agattctgtt cccctcttcg cagaagtgag
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      <212> DNA
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tagaggaagt agattagtgg ttgcttcggg atgggaggaa tgggaagatt gaggtctttc
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ttttgcagtg ataaaaatgt cctaaaattg actgtagcga tggtcacaca actctgaata
                                                                       180
tgcttaagac cattgaatta cacactttac gttggtgaat tgtatggtat gtaaattata
                                                                       240
gttcaataac atagttacaa aagataatca aaagcatgaa agcactgttg atgtggtttg
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      <212> DNA
      <213> Homo sapiens
      <400> 403
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aggcagacga atgaggaata aaggtcagag aaggtcagag ctgagtgacg tttggaatcc
                                                                       120
accccgttta ttgtagaact gggggttcag agggcaggtg cctcagagtt gaggccacac
                                                                       180
agtgaggtet ggtgggtgaa aggaeeeagg aaegaggegt teaggaaage aggttgteag
                                                                       240
agetatgtgg agtetgtggg tggcagggge agecgeteca gcetttgaag actttgaaag
                                                                       300
      <210> 404
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 404
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cttgtattat gcttctgata cgctataatt atttatgtac atgttttttt tcttcaatag
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actgtgaact cttcgaatgt aggactccta gagctagata ctcaattatt ttttattaaa
                                                                       180
ttgaatgact tgaaactaca gatcctttat ttaaacttcc caaatttctg ctttatctag
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gcaactcttt aaattctttt atctcatgta gatttcaaag gctgaaataa ttgagatttt
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<210> 405

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gatgaagaac ctgagttttc atcagccatg cctctggaag aaggagacac attcttttt
                                                                        180
cagccaagac cacttaaaaa ccttgtgctg gttgatgagt tggacagcct ctctcccatt
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ctgttttgcc agatagctga tctggccaat gaagatactc cacagttgta tgtggcctgt
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      <212> DNA
      <213> Homo sapiens
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gtgactgtct ggcaaggtca aaggcatcag ggaaggtaaa atactgaaac tatatttta
                                                                       120
aaaataaaag tattcccttt tgagtgtgaa ttaggaatca atgccccttc tcactacttt
                                                                       180
tgtgaaaaaa atcacagttc ctgcagcaag tctatgcctg ggtaacaacc aacccacaaa
                                                                       240
atccaagagg aggteeect eteeegeete tgtgaggett gaggageagt atgtatetgg
                                                                       300
      <210> 407
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 407
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agtettecag ttetggagtt ttgtggaaac ettggacage cecaccatgg aggeetacgt
                                                                       120
gactgagacc gctgaggagg tgctactggt gcggaatctg aactcggatg atcaggctgt
                                                                       180
tgtgctgaag gccctgagat tggcgcccga ggggcgtctg cgaagggacg ggctgcgggc
                                                                       240
cctcagetee etgetegtee atggeaacaa caaggteatg getgetgtea geacceaget
                                                                       300
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      <211> 300
      <212> DNA
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taaggttgca gaagtagaag cacaagattt gacagctcat tagatattaa agaagaccaa
                                                                       120
tgaatcagga gatggtaatg ccaagattta gacccgctgg aacgatgatg agttggtggt
                                                                       180
ggtgagagta agtagtgagc ataatgatat gttgaaatca gtaggaagat tgtgtttgag
                                                                       240
gaaaatataa ggtatccgtc cattcattct ttatttattc ctgttaatct ttaaaaagct
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      <212> DNA
      <213> Homo sapiens
      <400> 409
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tctaccttct caaacccccc agccggcaca tcacacaccg gacaccagga cccaagccca
                                                                      120
gcagacacag gatctgctaa cgcagctggc agctgaggtg gctatcgatg aaagctggaa
                                                                      180
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aggaggagge ccagtgacce tecaggacta tegectecca gaeagtgatg acgaegagga
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tgaggagaca gccatccaaa gagtcctgca gcagctcact gaagaagctg ccctggatga
                                                                       300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 410
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accaaaatcc aagctaggat ggggacagag gcctggagac aacctgctgg cctccttcca
                                                                       120
ttaaagccat tacagtgtca ccacaggatt gtaagaatta caaatgcgtt ttccagagtc
                                                                       180
cccaqagaaa aaggaqtctg gcaqttagaa gagtaaagtg catctgtcaa caaaagaaat
                                                                       240
accaaagatg agactacagc agcgacttgt cacctcttcc gtgttgctac tgcctgagaa
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      <210> 411
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      <212> DNA
      <213> Homo sapiens
      <400> 411
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aaaatagttc tgttgaattt caccctggca atgtaaattg atagcttatc ttcacagatg
                                                                       180
ccagacaatg gacaactcac catcagtcct ctgctcacct gagacaaatg catgtctgat
                                                                       240
tgcttcctct gccctattgt ttatgtgaaa atgcagattc actgagccag actaaggcat
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tctctgatgg ggagcagtat tgcatggtgg ttgagaactg aggctctgat gttagaactg
                                                                       120
gattctgact taacccactg tttgcccaca tcttgagcct tggtttccct atctgtaaaa
                                                                       180
tggcagtatt ctcgggctgg ctgaggaaag gaaatgaggc caggcgcggt ggctcaggcc
                                                                       240
tgtaatccca gcactttggc aggctgaggc atgtggatga tttgaggcca cgagtttgag
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     <212> DNA
     <213> Homo sapiens
     <400> 413
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cctatctacc aqttqaatqc tccttqqctt aaagggcaag aacgtgcgga tttatcaaat
                                                                       120
agccttgagg aaatatatat tcagaatatc ggtgaaagta ttctttacct gtgggtggag
                                                                       180
aaaataaqaq atqttcttat acaaaaatct caqatqacag aaccaggccc agatqtaaag
                                                                       240
aagaaaactg aagaggaaga tgttgaatgt gaagatgatc tcattttagc atgtcagccg
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     <211> 300
     <212> DNA
     <213> Homo sapiens
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                                                                       120
tgtaatttta aagggtttac atttttaaaa atttaatagg gtatcagtta actaatttta
                                                                       180
cttagatgga acttctgtaa gcttagtagg tatgcttaaa taaagcctgc taataaaata
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gagattcaga ctcaatagaa tggttttaca tatgtaatat atgttttaaa cagcataaaa
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      <211> 300
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tgaactcatg gctaaaaaag aaagagaaag tcagatggaa ctttctgctc tacagtccat
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gatagetgtg caggaagaag agetgeaggt geatgetget gatatggagt etetgaceag
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gaacatacag attaaagaag atctcataaa ggacctgcaa atgcaactgg ttgatcctga
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      <212> DNA
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      <400> 416
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cgagatttat ggtggcaggg aatccctcca agtgtgagag gcaaagtctg gagcttagcc
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attggcaacg agttaaatat cacccacgag ctctttgaca tctgtcttgc ccgagccaag
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gagaggtggc ggtcccttag cacaggaggc tctgaagtgg agaacgaaga tgctggtttt
                                                                       240
tcagcagcag acagagaagc cagtctggag cttattaaac tggacatttc tagaacattt
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      <210> 417
      <211> 300
      <212> DNA
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      <400> 417
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agagetttgg ttgagtatag attetectag gettacegta gagttacate etgataagee
                                                                       180
cattataagt tgaaaatgtt tttagccgtg gtggctcatg cctgtgttcc cagaactttg
                                                                       240
ggaaggtgag gtgggcgatc acttgaggcc aggagttcga gaccagcctg ggcgacagag
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      <211> 300
      <212> DNA
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      <400> 418
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120

tgagctttga cagtctgtct gggaggcagg gctcaggcat ccctggcctc ttggggttgg

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aqtaaatgcc agctgggctc agtggtgcac tcctgtaatc ccagcacttt aggaggctga
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qtqqqqagga tcacttgaag ccacgagttc agggctcagc ctgggcaaca gagaaagaca
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ggcttcccat gggagctgat ggcttcgtgc ccctgggcac cctcctgcag ttgccccagt
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tccgcggctt ctctgctgaa gatgtgcagc gcgtggtgga caccaatagg aagcagcggt
                                                                        180
tegecetgea getgggggat eccageactg geetteteat eegggeeaac eagggeeatt
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ccctgcaggt acctaagttg gagctgatgc ccctggagac accgcaggcc ctgcccccga
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      <211> 300
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catgggaget gatggetteg tgeecetggg caeceteetg cagttgeece agtteegegg
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cttctctgct gaagatgtgc agcgcgtggt ggacaccaat aggaagcagc ggttcgccct
                                                                       240
gcagctgggg gatcccagca ctggccttct catccgggcc aaccagggcc attccctgca
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      <211> 295
      <212> DNA
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aaaagactca aagtagatgg acagaaaaac tgctgtgagg aggggaaaga ggagcagcag
                                                                       120
                                                                       180
gqatqtqcaq qqqacqqtqq qqaaqacagg qtagaagaga tggttatgga ggttggagag
atggtgcagg actgggccat gcanagccct gggcagccag gggacctgcc cctgaccact
                                                                       240
                                                                       295
ggaaagcatg gnncccctgg anaagagggg ctagtncatc actgcagccc tggct
      <210> 422
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 422
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ttttccagtt ggatttgttt ttctgttctc ttctgtcctg tcttatactg caactgtgtc
                                                                       120
tectagggga cagatggeet tetttgteat etteactete cacecceaga gaggagteag
                                                                       180
agccataact caatcactca gcccctccaa agatagttga tgtgtgataa tctcataatg
                                                                       240
                                                                       300
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<210> 423
       <211> 267
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(267)
      <223> n = A, T, C or G
      <400> 423
cttatcctgg tggatgtgct attttcttna aggagtatga agcccttttc tanctatcnt
                                                                      60
cccagtggag cggagttctc agtgnncagt tactccatag tgcaatccat attaataggc
                                                                     120
ttcttctctt aagtcttcat ctcttcttt gcttaattac tgaaccgtaa attcccttca
                                                                     180
gagaaattta aatgctggta tttggacttt atacatgata ctttttgtag tttcttttaa
                                                                     240
tttttgaaag atgaactgct tcctttt
                                                                     267
      <210> 424
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 424
cctggtttcc tgtcccttag tggtgtggcc gtgggcaaac gccttaactt ccgtgagctt
                                                                      60
tgacagtctg tctgggaggc agggctcagg catccctggc ctcttggggt tgggtgagag
                                                                     120
ggagacagag gtttgtgaag cgctttgcac acctgggcat ctggtcagtg ttcagtaaat
                                                                     180
gccagctggg ctcagtggtg cactcctgta atcccagcac tttaggaggc tgagtgggga
                                                                     240
ggatcacttg aagccacgag ttcagggctc agcctgggca acagagaaag acacttgcct
                                                                     300
      <210> 425
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 425
gggaattget etteteteeg aggetetgtt tettgtaget atcaggaagt ggeagetett
                                                                     60
tgaataagtg cottttcctc teccatetge caeetttgte ttecetetgg acatateetg
                                                                    120
180
ccagaccagt gtccacatac cettecetgt geccacacac etteceetgt gecegeactg
                                                                    240
tcacccacca caagcctact ccagcaggag caccacagcc ttctgcggtc acgctgtgca
                                                                    300
      <210> 426
      <211> 277
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(277)
      <223> n = A,T,C or G
     <400> 426
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                                                                     60
gtattgccca tttggggtag atttaggaaa atattttcta aatccaagag ttcaaaacca
                                                                    120
ggctggacaa catagcaaga ccatatctct accaaaaaaa aaaaaaaaan nnnnnnnnn
                                                                    180
nnnnnnnn tngccccngn anccccnant tnntgggngg gntgnggnng gnggncnntt
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240

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ggnccnnngg gggtnagggn tgcagggncc ctnggcc
                                                                       277
      <210> 427
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 427
ctgatctaat gagctttatg atggagttga agatgctttt ggaagttgcc ttaaagaata
                                                                        60
gacaagaget gtatgcacta ectectecte eccagtteta etcaageett attgaagaga
                                                                       120
taggaactct tggttgggat aattttaaaa tatttttctt gctggcagcc accagaaact
                                                                       180
ggaagaggca aggaatagat tototootag agcotocaga gggagcacat otttgotgac
                                                                       240
accttgattt ttgcccagtg aacaqatqtg gaacccctgg cctccagaac tagagagaat
                                                                       300
      <210> 428
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 428
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                                                                        60
taagggatga gaaggtctat gtggaaaaac agttacaact ggagtggtaa ctgcaaaaac
                                                                       120
caagcagctt catgtgatcg ttaggacaga agaaatttct cctttgtagc ctagagcaat
                                                                       180
attotoaaaa tttaatgogo atqttaatoa tttgggggato ttttattoat tttttcatgt
                                                                       240
ggggatettt taaaaatgea aattetgatt tggtaagtet ggagtaggte etgagettet
                                                                       300
      <210> 429
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 429
gaatcatcga aggttgagac cgtgtctagt tacatagtta taaataccca tctatgtact
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gatgccttct aaatgtctat ctccagtatg gtcttttcct ttaagctcta gatccattga
                                                                       120
cacceteace atetetaaaa ggeattteaa aetgaacaea tetgataeag aaetttteat
                                                                       180
ttccttccca actttqccca cqccaqcctq ctcctccttc acqctttcca cttagtatat
                                                                       240
gateceacta tteacteagt etetqaaqet taaaacetag gatteateet tgactaetgt
                                                                       300
      <210> 430
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 430
caatcagtga taagctatat tttgagtttt aaaattgttt ttacaattac ccctgttttg
                                                                        60
agtatatatc ttgtcaaatc attctaataa atatttgctg ataactgtgt ggaatacata
                                                                       120
aatggtaggt agaaatttqq aaqaatcact acatattttc aqttatcatt ctctgtgtaa
                                                                       180
atteatgett taaaaatatq aqaaqttaaa gtgccttgqa tattatttta ttttctatat
                                                                       240
tttgtcccat attgtattgt ctaattttca ttgaaaccac ataacatgct tgaataggca
                                                                       300
      <210> 431
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 431
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tggctggtat tataggtgca caccaccaca cccaactagt tttttgtgtt tttagtagag
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 atggggtttc atgatgttgg ccaagctggt ctcgagctcc tgaccccagg tgatccaccc
                                                                   120
 accteggeet eccagggtge tggaattata ggegtgagee actgegeacg geetggggag
                                                                   180
 gttttatttc ttgacaaagg tatttgatac tcgtgcagac cctggagggt ctcactggag
                                                                   240
 300
      <210> 432
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 432
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                                                                    60
 cattgctttt ccacacagca gataagacaa aggagtggaa atagaggggt agagattttc
                                                                   120
 tettaaaegt gtgaggetgg agtggtatge tteattggea agaaeetggt eetageetge
                                                                   180
ctagctgaaa ggagggagt cagggagatg cactttgcag ccaaaattct gttgccaaga
                                                                   240
aggggaaagt agatttggtt gattttgatc tgtgtttgct gctgtgttac tctataattc
                                                                   300
      <210> 433
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 433
cacctagett tateatttgt aaaatgagte tetaggtaca geeetttetg gggttgagae
                                                                   60
agagtttctg aggagtaaaa gccatgtcat tgtggaaaca ggcagctatt ctcacagctg
                                                                   120
geatgageee actacteece tataateagt getgataaae tgeteteatt tgttggaett
                                                                   180
cagactttcc tgacccactt tgaatggggg ccactttgaa tggaaacttt ctatgtattg
                                                                   240
aattaaaaga totocaagat aaatggttaa atgaaaaago acagtgcaaa agggcatatg
                                                                   300
      <210> 434
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 434
aagataaaag agataaggaa gaaaaagaaa gcagcagaga aaaaagggag tggtctcgta
                                                                   60
geccaagaag aegeaaatee agateteett eeectagaag aegatettee eetgteagga
                                                                  120
gagagagaaa gcgcagtcat tctcgatctc cccgtcacag aaccaagagc cggagtcctt
                                                                  180
cccctgctcc agaaaagaag gaaaaaactc cagagctccc agaaccttca gtgaaagtaa
                                                                  240
aagaaccttc agtacaagag gctacttcta ctagtgacat tctgaaagtt cccaaacctg
                                                                  300
      <210> 435
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 435
agagtcaagg aaaagtgcaa gatagatcta tcccatttct tcctccacct ggagattcct
                                                                   60
gagctatgct cagcctctgt ggggcaggga agactgggga catttttagt caggatgctg
                                                                  120
agaagtaatt cctgctgggg ccaggcatct tttcagggct gctgtgatgc caacaaagaa
                                                                 · 180
ggggccccag gcccatcctt actcctggtc ccaaaaagga tccaagtggg atgggaagct
                                                                  240
300
     <210> 436
     <211> 300
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<212> DNA <213> Homo sapiens <400> 436 aagaaaggct gcctttgagt tgaccaacca tgttgaggtg gtagatgggt gctaaactca 60 ctgtagtctg agtaattgac ttccacaagt catccccact gttgagcctt tcaaaatgaa 120 gtotoagtat atttacaaat taatggacat cotototggg gattagtcat attotaatto 180 aacaaagaca ttgtttgaag tttgtttttg tttgctaaat gaactaaaaa ttatqagatt 240 tgcacctaaa ggtactgagg taaaggagag ccaaaagtgg ggtagtcaat ctacttattc 300 <210> 437 <211> 300 <212> DNA <213> Homo sapiens <400> 437 accaggaata atctagggct cattagagat gtcaaagatc tgttctagtt tcttaaccta 60 aaacaagagt gttttagttc cattttatag gcggggagtc tgagccaaac atgttatgtc 120 actiticcaag totocatago acagaagtot totgtotoco catootgact ticocagoto 180 atagggactg tcaaaggcag cagctctggc cggctgtgat gcctcatgcc tgtaatccca 240 gtaatttggg aggctgaggc aggaggatca tttgaaccca ggggttcaaa accagcctga 300 <210> 438 <211> 300 <212> DNA <213> Homo sapiens <400> 438 gcagaacatt totcaagaat cotottgago cagtaatcaa tootgtotca aaaaatqtto 60 tttgccattt cctagatact gcacaaaagt ggccatgtcg acatttgtcc acccaccete 120 caataagctg gagcgacaaa gggacattcc atccctgtac ccttagtggt agccatgaca 180 cgatggccag atcatggact ccggaaagct ttctgttttt actggaaaca tagcaaacct 240 tgatttagct ccaagaaatt gagtagggaa atatttgttt tttagcaatt gtcatagtaa 300 <210> 439 <211> 300 <212> DNA <213> Homo sapiens <400> 439 cagaaattca aataattctt ttctgcttca atgccagcag aaggtccccc aggtagacat 60 ggagaagcac tttgttttaa ataqqagggt ttcatagttg catctgaagc cacctgqttc 120 tgttaaactg tatcgtgcag gttttgggtt tggcattatt catgtttctg atcaattcta 180 tgcaactctc atagttcctg ttacttttta gcattagctg ccaaatgact tcaaaaggct 240 ggggtgggtg acttgactgt gagactggat tataacatgg acaaatctta ttttgcttaa 300 <210> 440 <211> 300 <212> DNA <213> Homo sapiens <400> 440 tcccaggaat ctttgttgta tattaatttt tgataaccat ttgattaact ttaaaattaa 60 gtatatgtgt gtatatatac atatgtatgt ttatatacac acatgtatct gtatagtttt 120 atatatacat atatacacat agacatacag agaaccacta ctttgtaata gtgtacagtt 180

240

tgttttatat etetttaett tttttgttae tattttatet ggeeagegta atagttttat

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ttagattttt taaaattctg tagattaaag caaatgacag ttattgaact atcacaaaac
                                                                       300
      <210> 441
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 441
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aggggaagtg acctccggcc tccaggctct ggccgtggag gataccggag gcccctctgc
                                                                       120
ctcggccggt aaggccgagg acgaggggga aggaggccga gaggagaccg agcgtgaggg
                                                                       180
gtccgggggc gaggaggcgc agggagaagt ccccagcgct gggggagaag agcctgccga
                                                                       240
ggaggactcc gaggactggt gcgtgccctg cagcgacgag gaggtggagc tgcctgcgga
                                                                       300
      <210> 442
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      <212> DNA
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      <400> 442
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                                                                        60
ccttgcggaa aatgctgatc tcagtcgcaa tgctgggcgc aggggctggc gtgggctacg
                                                                       120
cgctcctcgt tatcgtgacc ccgggagagc ggcggaagca ggaaatgcta aaggagatgc
                                                                       180
cactgcagga cccaaggagc agggaggagg cggccaggac ccagcagcta ttgctggcca
                                                                       240
ctctgcagga ggcagcgacc acgcaggaga acgtggcctg gaggaagaac tggatggttg
                                                                       300
      <210> 443
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 443
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                                                                       60
ccacgagcat cgttccctga gccccagaaa gggagatgaa gtggaaagct gtttcaaaaa
                                                                       120
cagactetgg acteatgatt ttgtttcacg gaaacaaact cgttctgctg tcaatctgaa
                                                                       180
aatgccagtg ctgtgccttg gaaagaatgt ttggctttaa tttaagggtt tttttttta
                                                                      240
gtgtgtgttt tccctccaag tgtgatattt cctgctgaat taaattatac ttcagttgtt
                                                                      300
      <210> 444
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 444
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ggccatgacc ctgcccctgt ggatcgggaa gcctggtgac aagcccccac ccctctgtgg
                                                                      120
ggccatccct gcctcaggag actacgtggc cagacctgga gacaaggtgg ctgcccgggt
                                                                      180
gaaggccgtg gatggggacg agcagtggat cctggccgag gtggtcagtt acagccatgc
                                                                      240
caccaacaag tatgaggtag atgacatcga tgaagaaggc aaagagagac acaccctgag
                                                                      300
      <210> 445
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 445
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60

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ggttaattcc ctgaatccta cttgaacatt gtataaattt ctctttgcat ataatacata
120
gatcacattt gtatattcaa caatctttca cctatttcat aagtcatttt ttcaccctgt
                                                                     180
atagtatggg aattattttt tatgttaaat agaaactgaa tgtactgggt tgaatggtgt
                                                                     240
cctctccaaa attcatqtac ttcctqqagc ctcagaatgt gaccttattt ggaaatactg
                                                                     300
      <210> 446
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A,T,C or G
      <400> 446
gnotttnaaa accatctact tgttcttttt gcaggatccc atngangtcg ggagaatgct
                                                                      60
ggccacagat ggtgctqccc aacaqqccca taccactcgt tccagtcaga ggtgcttggc
                                                                     120
ctttggggat gatgttcgtt gttccaatca gtctcttcca atgaccagac actgccttac
                                                                     180
ccatatttgt caggatacqa atcaggttct cttcaagtgc tgccagggat ctgaagaggt
                                                                     240
accetgeaac aaacetgtte etqtaageet etetgaggat eeetgetgee caetgeattt
                                                                     300
      <210> 447
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 447
gccagatect gcaggagage gcgatgcaga aggetgcgtt cgaggcaete caggtgagga
                                                                      60
aagacctgat gcatcggcag atcaggagcc agattaagtt aatagaaact gagttattgc
                                                                     120
agctgacaca gttggagtta aagatgaagn nnnnnnnnn ngaatgccta nntgagatna
                                                                     180
tttgacctgg tccttntttg natttgaccc ggnccanatc tacanggtca cttggttcat
                                                                     240
ctnctggacc cctqcttntt ctqqqctgng cnntnaatgc ntncgttcct tnagagaaca
                                                                     300
      <210> 448
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
     \langle 223 \rangle n = A,T,C or G
      <400> 448
gttgctgtca cttggatttc tagctttggg agcctgttcc acctactcag ctctgcattg
                                                                     60
agcagtatgg gcacatgccc tgtggacagt tactggacgt taatgaactc agaggagaaa
                                                                    120
ageagtgage cacttgttct gtqtgattta tggtacttca ttgctcttcc ttcacctcta
                                                                    180
gtcactttct attgctacct gccctacatt ggctcctgcc aaggtccctc tctctccctg
                                                                    240
ttttcctttt tttttttt nnnnnnnnn nnnnnnnnt tgcnttnncc cccaggttga
                                                                    300
```

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<210> 449
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 449
gecaageete ggeeteeact geacetgetg eggagtggea cetttgeetg caaggeeete
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taccccatgg cccagtgtca tctcagcagg gtctttggcc actcaggagg cccttgtggt
                                                                        120
gggttgctca gtctgtcctt ccctcatgag aagctactgc ttatgtccac agaccaggag
                                                                        180
gagctgtcac gctggtacca cagtctgact tgggctatca gcagccagaa aaactagagg
                                                                        240
aatcttatag attccagaac tcaggatacc tcagggatag gtcacagcca agagtacaaa
                                                                        300
      <210> 450
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 450
gccaagcctc ggcctccact gcacctgctg cggagtggca cctttgcctg caagtcccgg
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taccccatgg cccagtgtca tctcagcagg gtctttggcc actcaggagg cccttgtggt
                                                                       120
gggttgctca gtctgtcctt ccctcatgag aagctactgc ttatgtccac agaccaggag
                                                                       180
gagetgteae getggtaeea cagtetgaet tgggetatea teagecagaa aaactagagg
                                                                       240
aatcttatag attccagaac tcaggatacc tcagggatag gtcacagcca agagtacaaa
                                                                       300
      <210> 451
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 451
ccattgttag catcgtacac gattgtgatt tttatgtcaa aagaagccaa aacttgcaat
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actattttta gcagacaaaa aaaagaacta agtataaaat gtataaatat ttttgacttg
                                                                       120
aacatttgga tggcactggg tgcaagtaga gcatccatcc ttcggatgga atgtttggaa
                                                                       180
aaaagagact tttaaaaagg agacggttgt tttaaagagt ctgtttaggg gttaaagtac
                                                                       240
tgtaactcac gactgttaaa aaataaattt tcctgtgctg taaaggaagg tttcacagta
                                                                       300
      <210> 452
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 452
gcaggatgtg atgtcaccga gatgcagagg atactcagtc aaccaacatt tactgagcat
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ctacttcgtg ccgtatgtct tgtcaacgga aaggggtccc tatccagacc ccaagagagc
                                                                       120
attettggat etettgeaag aaagaatttg aggegaatee atagagtaag caaggeaagt
                                                                       180
tacttctata tagaagggtg caccettaca gatcaaacaa tgcttagtga tgtgtgtcag
                                                                       240
acctctgage ccaagcaaag ccatcatate ecctgtgace tgcatgtata catecagatg
                                                                       300
      <210> 453
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 453
cctgaggtca catgtggatt tggccagagc cttcaggagg tggaggccgg tgaggtcagg
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ageceagete tecaggggge ttetgeeetg actgggaagg gtgeetgget cectaaaaca
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120

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atqtcaaaqc cagtcctqct qttctctgtt gccagggggc aggtctgggc ctgggccaac
                                                                       180
cacqtttgtt atcatggctg ctgccttctg gacagctgcc agctctgcct tgagaggttg
                                                                       240
tgggacctct ggatccagct gacctgacag gtcatctact cagggaggag ccctgtgctc
                                                                       300
      <210> 454
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 454
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                                                                       120
atgggccacc actcctggct aactttcgta tttttagtac agatagggat tcaccatgtt
ggccaggctg gtcttgaact cctgacctca ggtgatctgc ccgcttcggc ttcccaaagt
                                                                       180
gctgggatta cagttgtgag ccactgcacc cagccaggaa tgacatttca aattattcaa
                                                                       240
ttttgctatc aacaccttaa tataaaacca aagaggtaag catgctggtt actatagaac
                                                                       300
      <210> 455
      <211> 221
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (221)
      <223> n = A,T,C or G
      <400> 455
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                                                                        60
aacattgagt tgatgatgat catgatgttt gagacagtgt ctcactctgt cctgcctcag
                                                                       120
cctcctgagg agctaggace acaggctcat gcctccacat cctgctacat tttttatttt
                                                                       180
                                                                       221
ttttgtagag ttggggtctt gctgnnnnn nnnnntttat a
      <210> 456
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 456
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tgaaacatac ttcaaagaaa gaagtcaaat taaatgactg tcattgccca ttaataaaaa
                                                                       120
caacaatctg agcttaacaa aaaatttaac aaacagggaa gacagaaaga tggtatattt
                                                                       180
attgcctgac tacactggca taactcactt taacaaaaat tatcacattt aataatataa
                                                                       240
cctgttatag ctaaatatta aacacatatt aattagggcc aactttgaag gatttctaat
                                                                       300
      <210> 457
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 457
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gagacagggt ttatccatgt tggccaggct ggtctcaaac tcctgacctc aagtgatcct
                                                                       120
cctgcctcgg cctcccaaag tgctgggatt acaggtgtga gccaccatgc ccagccaata
                                                                       180
atttcctqat ataataaaaa tqccaatact atacaattaa atagtaaagt gataaaaaaat
                                                                       240
aggataacat gataaccact aattaatata tactacataa tcatcctttt cgtgagttga
                                                                       300
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<210> 458
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 458
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tttccctgta gattgcaaag tcatctatgg agaggaaagg tccaaaatag tcactgggga
                                                                        120
gagcaggtga attagatggc caagcagggt ggatggatca tttgaggttt ggggtgacag
                                                                        180
atcaactgag atccacttac acttctgaaa acgcaagaac actttagaac attaacaaca
                                                                        240
cttaaagett tttacatcat ttgtaaataa ctggtggaac ttaacaccac aaaataaagt
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      <210> 459
      <211> 243
      <212> DNA
      <213> Homo sapiens
      <400> 459
cacactccag gctgagaaag agtaattagg aggcctgagg aggggccgag gaaaggctgt
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tggggtgtgc tggggttggt acccgagcgc cttcccctca cctcaaccag agaagagcat
                                                                       120
ccggttgctt tttaaagctt ttagcctgcc ctagcaagga caaagcatgt tagattagag
                                                                       180
atgettetge tgategeagg ggttettatt tgaaaacate tatgatgggg gaggtgtggg
                                                                       240
aag
                                                                       243
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      <211> 260
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(260)
      <223> n = A,T,C or G
      <400> 460
cacactccag gctgagaaag agtaattagg aggcctgagg aggggccgag gaaaggctgt
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tggggtgtgc tggggttggt acccgagcgc cttcccctca cctcaaccag agaagagcat
                                                                       120
ccggttgctt tttaaagctt ttagcctgcc ctagcaagga caaagcatgt tagattagag
                                                                       180
atgcttctgc tgatcgcagg ggttcttatt tgaaaacatc tatgatgggg gaggtgtggg
                                                                       240
aannnnnnn nnnnnnnntg
                                                                       260
      <210> 461
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 461
ggcaggtcat gttttcaaga gtagccagaa gtctggattc ttatgcaaag cctgttttgt
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tgtttgtttg tttgtttgtt tgaagtttgg cagcagattt aacattttta aagtactgtg
                                                                       120
caggccaaac aaaacacgcc tgttgactgg ttgtttgcca tcctaaatat aaagtggggc
                                                                       180
ccatgtgtgg tggctcacac ctgtaatccc agcattttgg gaggccaagg caggaagatc
                                                                      240
acttgagece aggaggtega ggetgeagtg ageagtgate geaceacege actecacetg
                                                                      300
      <210> 462
     <211> 300
      <212> DNA
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<213> Homo sapiens
<400> 462
gccaggtgtc attgcacatg cctttttgcacc cagaagttca agg

gccaggtgtc attgcacatg cctgcagtcc tggctactag ggaggctgag gcaggagaat 60 tttttgcacc cagaagttca aggctgcagt gagctatgat cacaccatgg cactccagcc tgggcaatag aatgagaccc agtctctaaa aaagtagaag ttaaaaaaaa agattaagaa 180 tagatgtagg gcagcagaat ttcgaacttc ttttcagcat cacaatactt taaaacagtg attgtcatct gcctcaaacc cattgcctct cacataggaa atattttgaa acatatttt 300

<210> 463

<211> 268 <212> DNA

<213> Homo sapiens

<220>

<221> misc\_feature

<222> (1)...(268)

<223> n = A,T,C or G

<400> 463

getgeactnt ggeetgeatg cactetggee tgeatggeag aacaagacee tgtggaagaa 60 atgaacactg gtattagact taaagattaa attteeteaa acatgteeta tetgtagtag 120 tteaactaga cacetttaa agtgeeteta aatteateag atggeeaaac tgtattata 180 ateeacttag geattttgaa aaacttteaa eetgtaaaaa gttaettta tettggattt 240 attatgaaga actttgtagt tgetttgt 268

<210> 464

<211> 300

<212> DNA

<213> Homo sapiens

<400> 464

catgagttaa aggatatttt cagtcctgtt atcttcaatt gcagtcttta aaaaaaccca 60 ccctattgtt ctacttgtta tatgtctatt catacagtaa attcatttca aggtttatgc 120 cagtgggtat tattggtgct ttttgaagtt gaggtgaacc atccaggaag gtcttgttaa 180 tgttatgttc atctataatg gcatagggga aatatatata tttttaatat tgtaaacatt 240 tgtactgaat aaccttttt tcccccctc cgcaagcaaa actggttgaa cagcggatga 300

<210> 465

<211> 300

<212> DNA

<213> Homo sapiens

<400> 465

attagctgct tgtggtggg ccccaaccgc cctcgggcac tggggagctg ggctggggct 60 gctgctctgg ggtctccggg ggccacagct tggggtgagt tgaagacctc aggggatgtg 120 gaggggtctg cggggccctg gccgcacagg atggccttca gggaaggtgg tcttggggca 180 tggtgcagag caggtgacg gcagagggag tggatgtgg ggtttgagga cgtgtgaca 300

<210> 466

<211> 300

<212> DNA

<213> Homo sapiens

<400> 466

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gaaaagggag ccgcgcagcg cctacgggag tccggcggca gcagccggta ccggcaacca
                                                                         60
 egggeagete teagggaate teegtegtga ggeeagagge teeagteece gegagteeag
                                                                        120
 atgcctgtcc agcctccaag caaagacaca gaagagatgg aagcagaggg tgattctgct
                                                                        180
 gctgagatga atggggagga ggaagagat gaggaggagc ggagcggcag ccagacagag
                                                                        240
 tcagaagagg agagctccga gatggatgat gaggactatg agcgacgccg cagcgagtgt
                                                                        300
       <210> 467
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 467
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                                                                         60
 atttttgaaa ccaaagccca gaagatgatg tttacttctc tctccctggc tctgcccttc
                                                                        120
ttactgcaaa ccatgctgtg ccttagggcc cttctcatag ctgttcctca tggccatgac
                                                                        180
tggaacaggg atgcaacctc tttctacaca agcacagtta gttgggtgaa gtctttttt
                                                                        240
tgtttgtttt agacggagtt tcactcttgt tgcccaggct ggagtgaagt ggcgtgacct
                                                                        300
       <210> 468
       <211> 300
      <212> DNA
       <213> Homo sapiens
      <400> 468
ctggaaatga aattattatt ttcacccata gtagcaataa aaagaatact cagtaatacg
                                                                        60
tatggaatac tacttagtca taaaaaggaa tgaaataatg gcatttgcag caacctggat
                                                                       120
ggaactggag accattattc taagtgaagt aactcaggaa tggaaaacca aacgtcgtgt
                                                                       180
gttctcactc ttaagtggga gctaagctgt gaggacgcaa aggcctaaga atgatacaat
                                                                       240
ggactttgga gactcagggg aaagggtggg agggcggtga gggataaaac agtgcacact
                                                                       300
      <210> 469
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A,T,C or G
      <400> 469
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atgaccgttc ctatctcaga tcttaataaa gagaaaaaaa aannnnnnnn nnnnnnaatn
                                                                       120
nggccttant tgantatact ngttagcaag cgtgngngac agagagtggg gaaagctnca
                                                                       180
tcattgaana tttngataaa ctttaccgac ttgagtntgg tncatntntc cctttnccta
                                                                       240
aattaactag cactgnctgn aagncatttn nctgtctgac gnntntccct tccattctgc
                                                                      300
      <210> 470
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 470
actgeeteet tecacaegag tgeecetttg gecaaagaag attattatea gatattagga
                                                                       60
gtgcctcgaa atgccagcca gaaagagatc aagaaagcct attatcagct gctctgctca
                                                                      120
gttagttttt attecegggg taccaageag etgeacagte ggtgeetggg aggeaegtag
```

180

```
aggeceetgg eteaggeaga gggagatggt tagaetettg cagggetaaa actetaattt
                                                                       240
ggaattgaat attgtggata tottagttaa aggocatgot tacagottag aaatgaagoo
                                                                       300
      <210> 471
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 471
ttttttaaga gataaggtct tgctatgtta tctaggctgg cctaaacttc tgggctgaag
                                                                        60
tgatcctcct gtgtagctgg gactacaagc atgtgccacc aatgcctggc ttctcacact
                                                                       120
gttttgtaac atagatatgt gaagatgtgt attatagaat tgtttgtaat actgtagtgt
                                                                       180
tgtaggcaat gtgactgtct atagggaagt ggacaggtta tttgtggtaa atactcatgg
                                                                       240
aaaacggtca agcagttaaa agcaatcaat tatggtcacc cagcaatgca gataaatctt
                                                                       300
      <210> 472
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 472
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tcaggacgaa aagagtcaaa cctttttggg aaaatcagag gaagtaactg gaaagcaaga
                                                                       120
agatcatggt ataaaggaga aaggggtccc agtcagcggg caggaggcga aagagccaga
                                                                       180
gagttgggat gggggcaggc tgggggcagt gggaagagcg aggagcaggg aagaggagaa
                                                                       240
tgagcatcat gggccttcaa tgcccgctct gatagcccct gaggactctc ctcactgtga
                                                                       300
     <210> 473
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 473
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ctaagetett gaggecatte acetgecaae etgaceatae tgettteaaa agtettttet
                                                                       120
catcagtaga atctattttg gtcacttcta gtcaatgaaa aatgtaaact tttaggagag
                                                                       180
aatgtttcct aggactcacc cactccattc aatgttacat ataaaatagt gtgatcaatc
                                                                       240
acaatgtcca totttagaca gttggttaaa taaattatot ggtotttgaa aagaccgtgc
                                                                       300
     <210> 474
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 474
aacttaaagg tagttttaga aggaagtaca aattggcttt catcttgcaa acaatcgttt
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tttacttcat tatcttaatt tgctttgtca ctcataaaaa ggaaaccata cctgagttgt
                                                                      120
agacaatgag gaaacacttg aggettetge tgtgtgttet tttgttattg ttgttattgt
                                                                      180
tgttactcag taacttgaat attgtttaat gtgttgtaag acgtagagtt tatctcaagc
                                                                      240
tgttaaaaat ggtaatgtac aaatgtgaat agacacttat ctatataata tgggtaagtt
                                                                      300
     <210> 475
     <211> 300
     <212> DNA
     <213> Homo sapiens
```

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<400> 475
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                                                                        120
 tctggggctg ttattttaa acacttttt tcataataca tattccgagt agatatttat
                                                                        180
 aaaatatatg tttctttcat tatgtgtttg taaaattaga gtttaaataa atatgctttg
                                                                        240
 atgcatagtt ttgaactaat gtaacatgat ttttcttttt taaaacagcc tgaaaatgta
                                                                        300
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       <211> 293
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc feature
       <222> (1)...(293)
       \langle 223 \rangle n = A,T,C or G
       <400> 476
tcatattagt gttgccanga gcaaaaggtg gggnaggtgt tgactttnan agcacagnag
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naanttttcn tgttgttgtt cgnttatctn gattgtgtta gtgcccacan gnctgtatgc
                                                                        120
atttttcata attcncanan ntgtatncta atnagggtgc acttcactgn acataaatga
                                                                        180
atctcaacag acaaaaggtt aaatcatttg ttcattcctt taacaagtat gtgtcgagtg
                                                                        240
cctactatgt gctgggcact gtaggttcaa tggtaagaaa agcagataca ggc
                                                                        293
      <210> 477
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 477
gatgagttct tttctttctt tccacctcct gcaaattatg tgatttgcat aatttgtaca
                                                                        60
tagttaggtt catttgttag tttgtattcc ttttggcttc ccccatatcc tcgttgactt
                                                                       120
tttctttctt ttgtaactta catatgttat gaaatttata tgaggatata taattttcat
                                                                       180
aaatgtttat ggtttacatg tattagttgt tattattaag atcaccctgg gattgactgg
                                                                       240
ccaagcattt ggtggaagat agcaataaat aatacatcat aaaagacttt aatgtaaaaa
                                                                       300
      <210> 478
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 478
aagccaggag cgaggggact aacagcgcac cccctccacc agtgccgacg gaaaccccgt
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tttaaattaa aaaataagcc agtatacatc gtagaaaatt tctcttaaaa atctcacaat
                                                                       120
ttgtaaatgt atatttttc tttaacataa aagtttacaa tataccgtaa aacaaaaggc
                                                                       180
tcaggaaaat aatttccaaa aaaaaggaag aaaaagaaac ctgaagtttt gaattaaagc
                                                                       240
tgaagacatt tttttaaacc ctgttgttga accagtgact tttttttatt gtgctgatgg
                                                                       300
      <210> 479
      <211> 231
      <212> DNA
      <213> Homo sapiens
      <400> 479
ecteccaggt teacgecatt etectgeete ageeteetga gtagetggga etgeaggtge
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ccgccaccac acccggctta tttttgtat ttttagtaga ggtggggttt cactgttagc
                                                                       120
```

```
caggatggtc tegatetett aacetegtgg tecaceegec teggeeteee aaggtgetqq
                                                                        180
gattacaggc gtgagccact gcgcctggcc ttgggttgtt atactggggt c
                                                                        231
      <210> 480
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 480
gttcccctct tcttgtgaga ctggtccagg cagcccttct ggacactgca tgatcacagg
                                                                         60
ageageeete tggeeeataa tgaeggeeet gtettegeag gtggeeacte gggeeegeag
                                                                        120
ccgctgggta agggtgatgc ctagcctggc ttattgcacc ttccttttgg cggttggctt
                                                                        180
gtcgcgaatc ttcatcttag cacatttccc tcaccaggtq ctggctgqcc taataactqc
                                                                        240
tgttgtcact ccactctcct aggcgctgtc ctgggctggc tgatgactcc ccgagtgcct
                                                                        300
      <210> 481
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A,T,C \text{ or } G
      <400> 481
gtgatcacaa gggtcctttg ctgtggaata gtgaggtggt tgagtcagag gcagagtgat
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gcaatgactg aaagactttt ccagccatct ccggctttgn atncggaagt cggtcatgag
                                                                        120
ccagggnntg caggcaggct ntgggagctg naaaaagcaa ganaatggnt tctcccctgg
                                                                        180
agcctccaga agggatgcgg tcctgccaac cccttgtcag tgagccnttt cagatttctg
                                                                       240
acttccagga ctgtaagana atnancttgg cttgtcgaac ggnttcagan ttcaancact
                                                                       300
      <210> 482
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 482
cctacttatt ggatgttggc tctttggtgt catggagatg gctttactgt aggtttgttg
                                                                        60
tgttgcatta cttttcattg ggattgaact gagaaataac aaacaagctt taagtgggaa
                                                                       120
attaaaaaaa agaagtaacc tatgtagatc caaacttaaa atgtgagaaa ttattgaaat
                                                                       180
ttcattttct acaaacttga aattageetg etaattgtaa agttgtttta ataatgetga
                                                                       240
caaatgtcag ttacgtttgc aaaggagtgt atggttctag gtatttgcct actgttaacc
                                                                       300
      <210> 483
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 483
gggtgcagtg gctcactcct ataatcccag cattttggaa gtcctatgca ggaggattgc
                                                                        60
cagaggccag gaatttqaga tcagcctggg caacataqtq aaactctcat ctttataaaa
                                                                       120
agtaatatta aaatttttaa aagtgtataa actgtaaagt atattttact qqtqttttct
                                                                       180
tecttattee tactiqueag atgeaaatae acatttttqt qtqtttqtgt ttaqtaatta
                                                                       240
taagtataca tatttettet attteatata tttetatgae attatatett agatgtgtaa
                                                                       300
```

```
<210> 484
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 484
caaagaggta cagagtgaag acagtgteet eetgtttgtt attgcatgga egateaegga
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aatcatccgt tactcctttt atacattcag tctattaaac catctgcctt acctcatcaa
                                                                     120
atgggccagg tacacacttt tcattgtgct gtacccaatg ggagtgtcag gagaactgct
                                                                     180
cacaatatat gcagctctgc cctttgtcag acaagctggc ctatattcca tcagtttacc
                                                                     240
caacaaatac aatttctctt ttgactacta tgcattcctg attctaataa tgatctccta
                                                                     300
      <210> 485
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 485
gtgaggctct cttaaaaaat ttaaaaaatac tgaagaaaca aagggaggag tttgtagaat
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ctggagtgga ggaaacttct gtgtcaccaa acacagaaac catcaaagaa aatctttcac
                                                                     120
ttccaaaatt agtctataga aaaaaaaaag aaaatcttaa cccaaataag agactgaggc
                                                                     180
aagagettea ateaategag gtttaetgag ceagagttgg agegtgeeca ggaaageaae
                                                                     240
acaagtcaaa gaaacgtctg tggcctgtgc tctcccaaga agttttcagg aggctcaata
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 486
cattaaatac acacaagact tcaattgctg ggtcctccat tgattaatga aaaaatgatt
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gtttttggaa tttgagtgaa acacttctta atggctgagt agggtggctt acgcctgtaa
                                                                    120
tcccaccact ttgggatcac ttgaggccgg gactttgaga ccagcttggc caacatgagg
                                                                    180
aaagcacgtc tttactaaaa atacaaaaat tagctgggcc tggtggctca tgcctgtaat
                                                                    240
cccagctact tgggagtctg aggcgagagg atcgcttgag cttgggaggt ggaggttgca
                                                                    300
      <210> 487
      <211> 300
      <212> DNA
      <213> Homo sapiens
     <400> 487
gtctagtata atcttgatgc tcaaaccaga taaggacaat acaagaaagg aagagtatag
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gctaattcta cccaataact aaatgaagta ttagcaaacc agattcatca ataatctttt
                                                                    120
aaaaatcaag aattaattgg atttaggaat ataacactgt gtataacaag tttaagagaa
                                                                    180
atatatgaga atgataagac tgcaattgaa agtagaggct ttctctggag ggaaaggtga
                                                                    240
300
     <210> 488
     <211> 271
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> (1)...(271)
```

```
<223> n = A, T, C \text{ or } G
      <400> 488
aancnangtn atnncaaggg tnattggntg nggaatagng aggtggatga gtcagaggca
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gagtnatgcn nnnnntgaaa gacttaacca gccatcaccg gctttgaata cggaagacgg
                                                                        120
tcatgagcca gggaatgcag gcaggctctg ggagctgaaa aaagcaagaa aatggattct
                                                                        180
cccctggagc ctccagaagg gatgcggtcc tgccaacccc ttgtcagtga gccatttcag
                                                                        240
atttctgact tccaggactg taagaaaata a
                                                                        271
      <210> 489
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 489
aaqacctgca gcttcagcat cacttgagaa gttgttagga atgcatacta gtgggccccg
                                                                         60
cccccagaca tagtgaatca gaaaccaaca gggaggcgcc tagcattgtt tttttaacaa
                                                                        120
gtgctgggtt attctgatgc acagtctagt ttaagaacca ctactttggg taaacgtttt
                                                                        180
gactgtttaa agtttatggc ggtgaagtgg gcatcttcaa agactagtac ttacacagtt
                                                                        240
tagaagattt caaggtactg ctgacagtag tttattatgt cagtatacat acgtgtagag
                                                                        300
      <210> 490
      <211> 275
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(275)
      <223> n = A, T, C or G
      <400> 490
gcactgtggc gctcacctgt aatcccacca ttttgggagg ctgaggcgga ggaccacctg
                                                                        60
aggcaaggaa ttcagaacca ctctgggcaa cataatgaca ctaacaaaga ctatctctaa
                                                                        120
tcaaggctag aaccaaggga aggctaataa ttgcccagta ctgtgcatct actgaaagcc
                                                                        180
ctacccaagg ccaccannnn nnnnnncnt ctntnntatg ncnantcnga aanaacngna
                                                                       240
acnttcacnt tnttgactga cgactgtcna cncat
                                                                        275
      <210> 491
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 491
tgatgcctta gtcacttggc cacacagttt tgtggtttac gagtcatggg aattgcttgt
                                                                        60
cttactctga ctgctaaagt tctgtcctat tgtcttttca tgtaatagca acatgactct
                                                                       120
gatgacaaag cccaactaat tacacaactt aatttaatag tttaaagcgc aaagggcatt
                                                                       180
ccctgagcag taaaatcttt tgtttggaaa ttttaaaaaca aattatattt tactttatgt
                                                                       240
tttatattta cgtaataagt atttacaaga acacaatttt ctcaagattt aaactgctca
                                                                       300
      <210> 492
      <211> 300
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<400> 492

<212> DNA

<213> Homo sapiens

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catgaagatg acagaggaca aaagcaagca gaaatataca aggatttgcg tactctatta
                                                                        120
tgaatttctc tttgagaaat aatacctgtg agaatgctgc tccttcaatt aggttcagga
                                                                       180
ttggaggaaa aatcatataa aataggttcc tgcaataata ttgccccttg agtatgggtg
                                                                       240
ggcttgtgac ctgctcagtg ctaaggaaat gcagtggaaa tgatgctgtg taacttctga
                                                                       300
      <210> 493
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 493
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gacagttgat agccaaacaa cagttttgga ttcactgact gattatgaaa gaagcagtag
                                                                       120
actggtatca agaatcagtc agcaaggagg ccctcaccag acgccagtgc catgttcttg
                                                                       180
gactteteag cetecatatt catgaactaa gtttttggaa teettagget teeacgtgtg
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gaaageetga getaacetae tggaggatga gecateacet ggageagatt caggeeatee
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      <400> 494
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gccaccatgc ccgaccagtt tctgctttta ttaaaattgt tcacagtttt atacattcat
                                                                       180
gttcattaaa aatgctattt agaaaagagt ttgataaaat aaatattata caaaattcga
                                                                       240
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aatggtgcgg ccgggtgtgt ggcaacatta cttcatgatg cagccatgaa ccctgcggaa
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gtggtcaagc agaggatgca gatgtacaac tcaccatacc accgggtgac agactgtgta
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cgggcagtgt ggcaaaatga aggggccggg gccttttacc gcagctacac cacccagctg
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accatgaacg tteettteea agecatteae tteatgaeet atgaatteet geaggageae
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 496
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ttgatttcag aattatgtgc accaataact atgttgttcc tctcattttt tccacttttg
                                                                      120
agcaagaagg tcacatggca gttaccctct gcctgtccta ccattgtctt ttgggtatgt
                                                                      180
gttgggcagg taatttgtct cttaagttcc agaaacgaga ttgagagaag caatatatat
                                                                      240
tcaaggagca gcatttaagg aactacctac acccaggaaa tttcatctgt acctgcacct
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      <210> 497
      <211> 300
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<212> DNA
      <213> Homo sapiens
      <400> 497
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                                                                         60
ttttaaaacc atcagatctc atgcaactta ttcaccatca caagaacagc agggcacaga
                                                                        120
cccatcccca tgattcaatc atttcctact gggtttcttc cacagcatgt aggaattatg
                                                                        180
ggagetacaa gatgagattt gggtggagac acagagecaa aacacatcag atgecatgga
                                                                        240
aatacaatga ggaaaagaca gtctttccaa taaactgtgc tgggaaacct ggctatccat
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      <211> 300
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      <213> Homo sapiens
      <400> 498
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ctacaggcac gtgccaccac acccagctaa tttttgcatt tttagtagag gcagggtttc
                                                                       120
atcatgttgg ccaggetggt ctcaaactcc tgatetcaag taatctgccc actttggcct
                                                                       180
cccaaagtgc tggcattaca qgaatggagc caccgcgccc agcctgattt ctttttttag
                                                                       240
gtcttgtcag gaaagatatt gattcttttg attcgtgaac atggtttttg gtcgtcttta
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 499
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gaggtgggat ctggaaccca caacttgatt cctaggactc ttttttttta attcccacat
                                                                       120
tggctgggtg tggtggctca cgcctgtaat cccagcactt tgggaggctg aggtgggtgg
                                                                       180
atcacctaag gtcaggagtt ccagaccagc ctgaccaaca tggtgaaacc ccgtctgtac
                                                                       240
taaaaataca aaaattagcc aggcatggtg gcccatttcc tgtaatccca gctactcagg
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      <210> 500
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 500
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aagggtcctt aactgtggaa tagtgaggtg gctgagtcag aggcagagtg atgcaatgac
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tgaaagactt aaccaqccat caccqqcttt gaatacggaa gacggtcatg agccagggaa
                                                                       180
tgcaggcagg ctctgggagc tgaaaaaagc aagaaaatgg attctcccct ggagcctcca
                                                                       240
gaagggatge ggteetgeea acceptigte agtgageeat titeagattie tgaetteeag
                                                                       300
      <210> 501
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 501
ctgagatctg cttttactga agtggatcaa tgatgaaact agccaaatct gagcatcaga
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aggettteeg gtetacetqa tgeatgatet etacagttet gagaageaga aetataaaac
                                                                       120
aatgtaaaac aataaggqca tatgtctggt gtgtgtgtg ggggtgtgtg tgtgtgtgca
                                                                       180
```

240

cccacacgtg tttataaaqq tagcagttgt aggaatgaat gagattgggg gtgagggggt

```
gcatatgtat gtctatgaaa gcctaatcat ttctgggcaa tgatgtaaag gttttacgac
                                                                    300
      <210> 502
      <211> 260
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(260)
      <223> n = A, T, C or G
      <400> 502
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                                                                     60
actgttggtg aatcttaagt gattctccca cctcagcctc ccaaagtgct gggattacag
                                                                    120
gcatgagcca ctacccttgg ctgtgatcaa gtatttagtn nnnnnnnnn nnnnnnntaa
                                                                    180
atagtetgaa gtagagaaaa tagcacccaa tetaanataa ggtgaggtet anneaettat
                                                                    240
ttaannctnc nttnntnnct
                                                                    260
      <210> 503
      <211> 294
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(294)
      <223> n = A, T, C or G
      <400> 503
gctatgctaa acagccttta catgtatggt ctggttaaag ttcctttgtt cctttgttt
                                                                    60
taataaaatg tgtcactgat tttttagctc aaaatcatca ctgttaattt ccagtcaccc
                                                                   120
caaatatggt taaaagattt tttttttaa tcatgaagag aaaattagta gcatttcttt
                                                                   180
ctctccccat tatttattgg ttttcctcac taatcttttt ttttttannn nnnnnccaa
                                                                   240
aaatattnat ctnggtttna cntttnaatt nccntnctta atnggaattt tttt
                                                                   294
      <210> 504
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 504
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caccttcatc agcaacccaa ccacctcgtc agcaacccaa ccacctcgtc agcaacccag
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ccaccttcat cagcaaccca accacctcat cagcaaccca gccaccttca tcagcaaccc
                                                                   180
aaccacctca tcagcaaacc aaccactttc atctgcaacc caaccacttt catcagcaac
                                                                   240
tcaacacctt catcagcaca ccaaccacct tcttcagcaa
                                                                   300
      <210> 505
      <211> 300
     <212> DNA
     <213> Homo sapiens
      <400> 505
gcccagctac gatctatatg ctgtcatcaa ccactatgga ggcatgattg gtggccacta
                                                                    60
cactgeetgt geaegeetge ecaatgateg tageagteag egeagtgaeg tgggetggeg
                                                                   120
```

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cttgtttgat gacagcacag tgacaacggt agacgagagc caggttgtga cgcgttatgc
                                                                        180
ctatgtactc ttctaccgcc ggcggaactc tcctgtggag aggcccccca gggcaggtca
                                                                        240
ctctgagcac cacccagacc taggccctgc agctgaggct gctgcagcca gggactaggc
                                                                        300
      <210> 506
      <211> 276
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(276)
      <223> n = A, T, C or G
      <400> 506
ccaagtninc ancanceace amanggnin neegnatgtg gieettatae acaatanaqt
                                                                        60
gntantcatc catacnaaaa gaatgagatc ctatcatttg caataacatg gatgaaacta
                                                                        120
aaagtcattg tgntatgnga aatnagncag gcncagaang tcanaatatc acgtgttgtc
                                                                       180
tectentetn taggannnnn nnnnnnnaag eeatetgaac tgacagagat ggagaatgga
                                                                       240
aggatggtta ccagaagttg gtggggaagg gggaag
                                                                       276
      <210> 507
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 507
aaaacacaca cacacacaac acaatgtttt cacgcctgta aacctagcac attgggaagc
                                                                        60
caaggtggga ggattgcttg aggccaggag ttcaaggctg cagtgagcta tgattgcaca
                                                                       120
ctgtactcta gcctgggaga cagagtgaga cactgtctct aaaaaaaaa aaagtttttq
                                                                       180
aaccttaaaa tactttgttt gaatttetaa teateattea aaaqaqeaqt aaaaaatqqt
                                                                       240
tacttgttct tgtacaagct actaattaga ctatagtagg atattttaaa gagctgaatc
                                                                       300
      <210> 508
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 508
tgaagccagg aaagggggtg ggctaggggg tgctgtttta ggtagagtga tgggaacagc
                                                                        60
eccactgage aaactttage cacatgagta getggaagaa aageetteta ggaccaggga
                                                                       120
acagcaagtg caacagccct gagacaggat gggcttgtca gtttgaggag cagtgggagg
                                                                       180
cetgaaccag gttacatggg geceagecag tatggecaeg aetttgtgtt ttatecagag
                                                                       240
tacaaaggag cctcactgag ggacaaggga agtggcatga tgtgacccgc atattaagag
                                                                       300
      <210> 509
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 509
gcctgggaaa gcgtggcgcc catgaatatc cgcaggagca cgcatgacct gggggccatg
                                                                        60
gacggatggt tgtacgccgt ggggggtaac gacggtagct ccagcctcaa ctccatcgag
                                                                      120
aagtacaacc cgaggaccaa caagtgggtg gccgcatcct gcatgttcac ccggcgcagc
                                                                      180
agtgtgggtg tggcggtgct ggagctgctc aatttcccgc cgccatcctc cccgacgctg
                                                                      240
teegtgteet ccaccageet etgacecace taccaccaga ggeetgeage eteccacatg
                                                                      300
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<210> 510
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 510
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caaagctggg aattccttat agagttattc acaatgcctc cataatgaat gctgtaggct
                                                                       120
gctgtggttt acagacatca aagtaaagga gcagtctttg gaaaatctaa tcaagggaag
                                                                       180
gaagatetat gaaceteeac ggtatatgag tgtaaaceaa geageecage agettetgga
                                                                       240
gattgttcaa aatcaaagaa tacgaggaga agaaccagca gttaccgagg agacactttg
                                                                       300
      <210> 511
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 511
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ccagcacttg tattgattat ttttcatttt gataatgttg ggtttttaaa aactccttta
                                                                       120
tgatggaaaa tttcaaacat acacaaaagt agagagagaa tggtataata aacccactca
                                                                       180
gttttaagga ttgtcaacta ataccagttt tatttcatgt atgactccaa caacttcccc
                                                                       240
aaccagcett cagattattt gaaagcaaat ttcagacatc gtattttact catacatttt
                                                                       300
      <210> 512
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 512
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gccacaaggc tecetaatge tggtetetge tecaeteece ggetteeegt gaggeaggag
                                                                       120
gcagagccac agccaaggcc ctgaccactt ctgtgccagt tgtctaagca gagcgcctca
                                                                       180
gggacgctgg aaatgcctta aggatagagg ctgggcatca catcaaatgg gactgtggtg
                                                                       240
tttggtgaaa accttcctga ggatctggat tcaggaccct ccatgactgg cctatttact
                                                                       300
      <210> 513
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 513
cgaataaagc agaaaaggag agatcgctga aggaaaagtc tccgaaagaa gaaaaactga
                                                                       60
gactgtacaa agaggagaa aagaagaaat caaaagaccg gccctcaaaa ttagagaaga
                                                                      120
agaatgattt aaaagaggac aaaatttcaa aagagaaggg agaagatttt taaagaagat
                                                                      180
aaagaaaaac tcaaaaaaga aaaggtttat agggaagatt ctgcttttga cgaatattgt
                                                                      240
aacaaaaatc agtttctgga gaatgaagac accaaattta gcctttctga cgatcagcga
                                                                      300
      <210> 514
      <211> 290
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(290)
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\langle 223 \rangle n = A,T,C or G
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acactaacaa acatggctaa aaagcacatg tcagaacaca gaagcctagg tagatggttg
                                                                        120
acatttttat aactteetta agtgagtagt taaaccagea gtettaatte tgttggtett
                                                                        180
ccaagagtgt ttaattacat aagtattacc tgtattcatt tcccacaact gttgggtttt
                                                                        240
tetttettt tttttttt nnnnnnnne tneenaaaa aneneeeggg
                                                                        290
      <210> 515
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      \langle 223 \rangle n = A,T,C or G
      <400> 515
                                                                         60
anaaggegea ngaageagaa gegeagageg aggaegaega egaggataca gaagaggaac
agggggaaga aaaggaaaag ggagcgcagg agaaaaggag ggggaagaga gtccgttttg
                                                                        120
cataagatga agaatagagt gaaaattcct cggaggacgg tgacataacg gataagagtc
                                                                        180
tttgtggaag tggtgaaaag tacatcccac ctcatgtgag gcaagctgag gagacagtgg
                                                                        240
acttcaagaa aaaggaagaa ctagaaaggc tgaagaaaca tgtaaaaaggt ctacttaaca
                                                                        300
      <210> 516
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 516
                                                                         60
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ctatgtctac ccctaggagt acagtaggtg tggcagtact aagtggaaaa ctttatgcag
                                                                        120
ttggtggtcg tgatggaagt tcttgtctca aatcagtaga atgttttgat cctcatacta
                                                                        180
ataagtggac actgtgtgca cagatgtcaa aaaggagagg tggcgtagga gtgacgacct
                                                                        240
ggaatggact gctgtatgct ataggggggc acgatgctcc cgcatccaac ttgacttcca
                                                                        300
      <210> 517
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 517
ggaaccatga gaaccgaagc tagaattgct attgaattac tttattttct cttcccttat
                                                                         60
tgggtagaga tacatcatta ctggcctcag gggtttaccc aaagaaaggg tatttttgag
                                                                        120
caaataatgt gattteetgg ctattttgtt gggggettaa gatttttttt ttteaaatge
                                                                        180
attittagtc actaaaaatt aactgtcgta ccatctagaa ctatactgtc cagtaccata
                                                                        240
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<210> 518

<211> 214

<212> DNA

<213> Homo sapiens

<400> 518

gcctctagcc gtatgtagct atttgtatta agattaattg aaattttaaa tccagttcct

300

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ctcagacaaa gaaaccattg aaattataga cctagcaaaa agagatttag agaagttgaa
                                                                         60
 aagaaaagaa aagaggaaga aaaaaagtgt ggctggtaaa gaggataata cagacactga
                                                                        120
 ccaagagaag aaagaagaaa agggtgtttc ggaaagagaa aacaatgaat tagaagtgga
                                                                        180
 agaaagtcaa gaagtgagtg atcatgagga tgaa
                                                                        214
       <210> 519
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 519
agcaattcca ctcctagctc cacccacagg aattgaaagc aaagacgcaa acagatgcct
                                                                         60
gtgcaccaaa gttcacggca gcatccttcg ccatagtggc agcatccgtc gtcacagcgg
                                                                        120
catcatcett catcatageg geageateeg tegteacage ggeageatee ttegecacag
                                                                        180
cggcagcatc tgtcgtcaca gcggcagcat ccttcgccaa agcggcagca tccttcgtca
                                                                        240
tageggeage atcetttgee atageggeaa ggtggaaace etgteeatee actgaggegt
                                                                        300
       <210> 520
       <211> 300
       <212> DNA
       <213> Homo sapiens
      <400> 520
caccgccagg ccagctgtca ggaaacaggg gctctaggcc cagcttcacc acttaggagc
                                                                        60
tatggetttg tteagaaaca ttgtgaetet ettaceeaca eatteetetg etggaagggg
                                                                       120
agattgacaa accagcatca tetetaattt actacaaaag ceeteactgg aaattattet
                                                                       180
taacttagca gctggtagga tccattaaaa aaaaaagtaa gttagactgt gttactctgc
                                                                       240
tgetcaaage eetgeagtge etecteattt tacetagegt aaaacetaaa gteettteea
                                                                       300
      <210> 521
      <211> 270
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(270)
      <223> n = A,T,C or G
      <400> 521
cacagttctg catggctggg gaggcctcac aatcatggtg gaaggcaagg aggtgcaaaa
                                                                        60
gcatgtctca catagtggca aggcaggaga gagcatgtgc aggggagctc ccatttataa
                                                                       120
aaccatcaga totcatgaga ottagtcact accacgagaa cagtatgggg ggaaccatco
                                                                       180
ccatgattca gttatctgca cctggcccca cccttgacac ntgggaatta ttccaatgcn
                                                                       240
nggtganatt tgnntngnna nntttncnna
                                                                       270
      <210> 522
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 522
attgaaggca gagaaggaag ggaggaggga atgattcaag gccaaaatgg ccacatttag
                                                                        60
aagatacete agatgataae cattgttatg tgtgtgcaat tttatttaae agtgetgtgt
                                                                       120
atgtggtgga caagttatat gaaatatcta gtctttctag atatttggaa gtgcttgatg
                                                                      180
tatttaaaag tggtagtaga ataacacttt gtaaatagct tttaaaaaact gatgggaaat
```

240

```
300
qctqtttgga agtggaattg ttgaaccacc tgggaggtgg gagggaagaa attgcaaatg
      <210> 523
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 523
tgaagaatgg cgtgggttgg ttcctttcaa atgcacttga gcagcggtct ccaaccacag
                                                                        60
ggccacagag ctggaggtga gcagcaggcg agtgaaggga aacttcatct gtatttctag
                                                                       120
ecceteccat egettgeatg accaectgag etceatgtee tgteagatea geageageat
                                                                       180
tagattetea caggageaca aactetqttg tgaagtgtge atgegaggga tetaggttgt
                                                                       240
                                                                       300
qtactcctta tgagaatcta atgcctgata ttctgttact gtctcccatc accccagatg
      <210> 524
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 524
caagaagagt tttctgttca gtttggaaca agattttgag aagacattta ggatgtacta
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gtttgagttt ttaaatgtat atttgagata ttttctcaac tttctctttg ggtctgtagc
                                                                       120
taaaatatqc aqtataatgt tatatttatt tattttttaa gagatggggt ctagctattt
                                                                       180
tqcccaqqca gactcaaatt cctgggctca agtgatcctc tgccttggcc tcctgagtag
                                                                       240
ctqqqactta cagacatgtg ccaccaaacc tagtggctat ataattttta aaaatattct
                                                                       300
      <210> 525
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 525
gccacacggg cccgcatcat ccctgcaatc tggttccgct acgacctcag ccccatcacg
                                                                        60
gtcaagtaca cagagagacg gcagccgctg tacagattca tcaccacgat ctgtgccatc
                                                                       120
attggcggga ccttcaccgt cgccggcatc ctggactcat gcatcttcac agcctctgag
                                                                       180
qcctqqaaqa aqatccaqct qqqcaaqatg cattgacgcc acacccagcc taatggccga
                                                                       240
ggaccetggg categorage ettgeetera gtgecetgte teetttggee etcaatetgg
                                                                       300
      <210> 526
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 526
ttecctccct cctcctttca ttctccttct ctccttctcc cttccttttc tcctacctcc
                                                                        60
tttgactaag cotcoctcc ctactccctc ctttccttcc ttccttcctt cttctctatc
                                                                       120
aatataatca ctttgtttct ttcaggtgag atcggactgg aactgttcgg ctgcgaccag
                                                                       180
aaatttattt teetgagtaa attgeegaga attaagaatg aagagggeea tttgeatete
                                                                       240
cttaaattat teagttaeet getttattge teeatgtgga aaaettaaaa ttgttaagtt
                                                                       300
      <210> 527
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 527
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atccagagaa atgatgtgcc ttgtgtaaag ttgtggttag gaagggacag agccaggact
                                                                        60
ctaaattctg tcctccggcc ataattccaa aactttctcc aatgttaggt atgtaggcta
                                                                       120
aaatgtgcta acagcacttg tgtttttgtt tccttttgtt ttacttttta ttatqqcaaa
                                                                       180
tttcaaacat atacagatac agaatagttt aatgaactcc catgttctca tcatgccagt
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atttgacttt ttcaatgcat tggcatttgc attgatggta caaaagcaag gatgagtaaa
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atggnnnnnt nettagegng ateaagatgg naanaantge aenaganaae nntgtntnet
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gaaccattga aaaggtgttt gtcaaagctg gagacaaagt gaaagcggga gattccctca
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tggttatgat cgccatgaag atggagcata ccataaagtc tccaaaggat ggcacagtaa
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totatgcagt caccgaggag gagtcggacg aggaaggcag ccaggagaaa ggagggacq
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acagccagca gaagttcatt gctcacgtcc ctgttccctc gcagcaagag attgaggagg
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aaaaggaaaa agaaatgtat ttaaattatc catgctttta gctatttact tatqaqcctt
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tataacagat tottoatagt otgoottota tactoocagg gtgatggtot ggggaagggg
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aggeecatge acacacacgt geacacacat geagagacat geagacaege aggeacacat
                                                                       180
gcacacatgc aaagacacgc atgcaggcac acgcagacgc acacagagac acacatgcag
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ageggateca caatattete qtqcaqtqtq tttqqaatee tqqtetqqqe teteqteqtt
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tectagatae tegggagget aaggeagaag gateaettga geecaggagt tegaggetae
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agtgagetgt gategtgeea etgeaeteea teetgggtgg cagagtgagg eeetgtetea
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tocaggetet cetqqateeq tacetaaaaa tacateteaq acqqcaqeta ttactacaaa
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gggaggcctc gtgggtctgg tagattatcc tgatgatgat gaagatgatg atgaggatga
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caacttgcaa ttcagggggc atgtcccagt gttttttttg ttgtttttag atactaaatc
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aaatttattt attgaagaaa ctatatcctt tgctttgtaa aattttccac agtgtggctg
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gctttggctg attgctagcg tcatttgcta tttatttttg tcctgtatct tggatctggc
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gccttgatca gatttaagtt gattttt
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cagtcatgtg ccacgtaaca gcgtctgggt cagtgacgga cacttacctg acagcggatc
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cacaatatte tegtgeagtg tgtttggaat cetggttggg getetegteg ttggeettqt
                                                                       240
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gattttgttt tggcttataa tgacaagaaa atggaatttt ttttccctct ttctaatgtt
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taaatcccat aaagctaagt ttcccgttaa agggaagtgc tttgaagatg tgtacccatt
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ccatttaata acattgattt cattctgttt aatgaatttg gaaatatgca ctgaaagaaa
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tgtaaaacat ttagaatagc tcgtgttatg gaaaaaagtg cactgaattt attagacaaa
                                                                       240
cttacqaatq cttaacttct ttacacaqca taggtgaaaa tcatatttgg gctattg
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cgaaaccagg ttcacagaat gattgcagag ttcaagctga tccctggact taataatttg
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tttgacaaac tgatttggag gaagcattca gcatctgccc ttgtcctcca tggtcacaac
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tqtttatttt taccttttaq aattqqtcct atgaagaagt agaaagtgag tcatgcacta
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gacagtgggc ctagctcatc agtggctaaa gttgaaaagg ggttggtttc ctgtatatat
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caaccetttt aagtagacaa gaaagaatga attgttggtg gtgcagtggt gagcataget
                                                                       180
                                                                       240
gcttttcaag aacaaaaaag actcaaatga ctaaaatcaa gaatgatcaa gaatgagaga
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ctcctcaaca caagcccaaa ctgctacccg cgaggtgcaa gtaagcggca cctcagaagt
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gtctgcgggc cctgaccggg cgcaggtggt ggtgcgagtg agcagcacca aggaggcggc
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catagcagat aaaatacagc aaatcctaac cagcacaggt tttagtgaca aacgggcccg
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tctgatttac tggccccgtt tcattcgaca caaatgtaag cagagattca ccaagatcac
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ccaataccta attcgaatta caaaacttac actaaagcga cagaggaaac ttgttccttt
                                                                     240
gagtaacgaa ggtggagcgt agannnnnn nganganang aaaaggcctt nttagctg
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ctccaaatat atgtatgtat gtgtatatat atatatgcac acacacacac atatacacac
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atatatat totgaatata tatattogtg actocoogaa ataaattoag tttatatata
                                                                     180
tgtaaataaa ttctgaagac tctacatgtg tgtgtatata tacacatata tttttgtatt
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totttaacca gatcaacatg ttatatggaa ctattacaga attotgcact gaagcaagct
                                                                     180
gtccagtcat gtctgcaggt ccgagatatg aatatcactg ggcagatggt actaatatta
                                                                     240
aaaagccaat caaatgttct gcaccaaaat acattgacta tttgatgact tgggttcaag
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ttcacggctc actcccccag gacaagccta gttaggtagt ggctgcatct ggtatccctg
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aagacctcat aaatggagag agatatatca ttaatggata ggaagcctca atggcataag
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gcctgggaaa cacagggagg cccccatcgc tacaaaatat tttaaaaatt agccaggtgt
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ggtggcttgt gcttgttgtc ccggctactt gggaggctga agtgggaggg tggcttgagt
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tactccacgt gtaatgcntc ncaaacnttg ncntatngct ctgaanacnc tncgcgacca
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ngaanaatan anaagannet gnanannatg etanantttt ggeenanana atgaacgagg
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ctaaagagat teneetggan enaannnntg aatagantea taettteetn tetgetaget
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 gcaagagcct gtctcaggaa aannnnnnn naaaantcca aaantanttn gnangttcca
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 aattgennge enttetgana aangnaatae ganenaatet teeacenten taeteentee
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 cacctaanat gngaaccctn tttgnccann ggntccaaac ngnatnngct acttgngngt
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gtaacagcgt ctgggtcagt gacggacact tacctgacag cggatccaca atattctcgt
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gcagtgtgtt tggaatcctg gtctgggctc tcgtcgttgg ccttgtagat caagtagggg
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      <221> misc_feature
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tgtattacaa aaaatccacc tttctctaag ggaagtttgt accccattga ttcttggtgc
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ctttgggatc gactgggttt taatggccta gttatttgag gattttgctg ngntgtnnnc
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atggnetntn ngatnneett nganganann nne
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gtgtcttgta tgtgctaatg agatggctgg tgtctgagag cccctagaga gcttcaagat
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gggggctagt ctttagaaag tccaagcaat ggctaggtat ggtggccact gcctqtaatc
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gggtcctgat ggaccagcac atgggctttc tatgcaacga ggctaagaat cttctctgtg
                                                                       180
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gettttaegg cegecatgeg gagetgeget tettggacet ggtteettet ttgeagttgg
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ctgcggcagg atggcgtcat gcacaatcag cagcaccttc ttgtagaggc tgaggggcag
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cttgtgcttg aggaagctga gccacatggc ctggaaaacc ctcctgtgct ccttcaggtg
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caggigiging coatcacaco togotheraca thittetique eqquicitact atquipecca
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cetyteetyt tyggaggtye tytgeaaace taaccaagtt actaaccect etytttaty
                                                                    180
tgctacacaa aggggataaa tacaagcttc cctctctagc caattctatt tggttcctga
                                                                    240
gtttggaaaa gtgatagata ctgattttct atgattttat gaggacttaa ataaqctcct
                                                                    300
     <210> 562
     <211> 300
     <212> DNA
     <213> Homo sapiens
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<400> 562
ggaggacgag gaggaggacg acgaagagga ggaggaggaa aaggaggtgg aggagcagca
                                                                         60
gcagcagctg cagcagctaa tatgttgtac ttattctgtg ctgggcaaaa ttctggatat
                                                                        120
ttttcatgta ctatttaagc ctcacaaaaa tcttatgata taggaaatgc ttgtttccat
                                                                        180
ttggcacatg aagaaactga agaacagaga aatgatgaaa cttgcgcagg gtagtctgtc
                                                                        240
 cagagtetgt attttaacta etgetgtgtt geeteecatt geatagtgae tteaegtgta
                                                                        300
       <210> 563
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 563
gcctattcag ttcctggtaa gggctgtctt cctggcttgc agttgaacta cttcttgctg
                                                                         60
tgtcttcaca agcatgcccc catcctgtgc cgataagaac tccagacccc aaactcagct
                                                                        120
catacacaca cggaagagag aagcatctga acatcaagaa gagaagaagc tgctggacat
                                                                        180
cagaaactgt gaaaggagag gagtttggct gagctccagg ggaagactgc ctgcacattc
                                                                        240
tateceettt teagtteece atcetgetgt cagecacatt taccacteaa taaaatette
                                                                        300
      <210> 564
      <211> 299
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(299)
      <223> n = A, T, C \text{ or } G
      <400> 564
gagaagccaa gggagaggag gaggaggaaa ctaacgattc cctgcccacc cccacaccca
                                                                         60
gcaccaccaa caggtgggca agcttgccga gaaaacgcag agggcatcct gtgagcagca
                                                                        120
aacactetga gnnnnnnnaa gaegeagaga agtaaagate aaagegetae tneangatee
                                                                        180
cgtaccagac tcaagccatg gctggtccct tctccgtctg ctgtccgccc gcccggactc
                                                                        240
agettetggt titggeegag egggtettae eegtgggttt etgeteegae ggaacetgt
                                                                        299
      <210> 565
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 565
cttgagecca ggagttcaag tecaaettgg geaacatgae aagaeeettg tetetttaaa
                                                                        60
aaagcaacte aaaccatgte ttgaaaaget atttaatggt cagacacgat ggeteacgee
                                                                       120
tgtaatccca gcactttggg aggccgaggc aggcggatca cttgaggtca ggagttcaag
                                                                       180
accageetgg ccaacatgge aaaacccagt etetaetgaa tgaaaataca aaaattaget
                                                                       240
ggcctagcag ttggtggtgg caggtgcctg tagtcccagc tacttgggag gctgaggcag
                                                                       300
      <210> 566
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 566
attttgcttc ccttgctcta gagagagtat caaggcccag ggggccaccg gcgaggtgta
                                                                        60
ttgccccagc ggagagaaat gccccctagt cgggtcgaat gtaccttggg ccttcatgca
                                                                       120
```

```
gggcgaaatc gcgactatct tagctgggga tgttaaagtg aaaaaggaga gagacccttg
                                                                        180
aaccactggg cagccacctc ctttgcccta gaccagctcc tctccaatcc tgaqqqcccc
                                                                        240
tececcaace caactegace etecetecee teaececeaa ggtgtagaat tgtgaatata
                                                                        300
      <210> 567
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 567
tcaagtgtca gaattaactg ttcaaaatgt tctgaatcat gtagatacat ggcaggtaac
                                                                         60
tgtttatggg agaaaagtac agtgctgtta cgtggcactg tacagtcatg tgccacgtaa
                                                                        120
cagcgtctgg gtcagtgacg gacacttacc tgacagcgga tccacaatat tctcgtgcag
                                                                        180
tgtgtttgga atcctggtct gggctctcgt cgttggcctt gtagatcaag tagqqqaaqt
                                                                        240
gagtgatgtt cagtcatgct gctgggacac ttggttttcc agatgaaaac acataaataa
                                                                        300
      <210> 568
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      \langle 223 \rangle n = A,T,C or G
      <400> 568
gctcttgttc tttntgcagg atccntcgat tcgtttaagg aaaaccagca aataacaaga
                                                                         60
aaaccattta atgtaaagat ttgtaaataa tcacttcaaa agaagtgcct tgttqctqtc
                                                                       120
acatttagtc catcttcata taattcttat ctgggccagt ttcttgggca tgggacatqt
                                                                       180
gcagttacac aagcotgtgc tottaagagg gtottaccca tagtttaatg ttotgctgtt
                                                                       240
gtagtettga aattettaat gatttaacaa ggggteetee atttteattt tgeactggge
                                                                       300
    <210> 569
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 569
aagcagettg gggeteacte eccetecace ttgetgacea eccteatgtt etttaatace
                                                                        60
aagtacttcc tattgaagac agtggaccag cacatgaagc tggccttctc caaggtcttq
                                                                       120
cgacagacaa agaagaaccc ctctaatccc aaggataaaa gcacgagtat ccggtacttg
                                                                       180
aaggcccttg gaatacacca gactggccag aaagttacag atgacatgta tgcagaacag
                                                                       240
acggaaaatc cagagaatcc attgagatgt cccatcaagc tctatgattt ctacctcttc
                                                                       300
      <210> 570
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 570
cccaggatga actggttgca gtggctgctg ctgctgcggg ggcgctgaga ggacacgagc
                                                                        60
tetatgeett teeggetget catecegete ggeeteetgt gtgegetget geeteageae
                                                                       120
catggtgcgc caggtcccga cggctccgcg ccagatcccg cccactacag ggagcgagtc
                                                                       180
aaggccatgt tctaccacgc ctacgacagc tacctggaga atgcctttcc cttcgatgag
                                                                       240
ctgcgacctc tcacctgtga cgggcacgac acctggggca gtttttctct gactctaatt
                                                                       300
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<210> 571
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 571
 gttgctttca aaagacacat atcaccatag tacatgtaat aacacacata ggctcaaagt
                                                                         60
 aaaggggtgg cgaaagatct gttatgcaga tggaaaaaaa gatcaggggt cactattctt
                                                                        120
 gtatcagata aaacagactt tttaaatcaa caacagtaga aaaaggacta gggcattaca
                                                                        180
 taatgaagaa gggttcaatt caacaagatt tatcctatac acacccaaga ttggagcact
                                                                        240
 cagatttcta aaactattat ttctagacct aggaaaagaa ttaaacggcc acataataat
                                                                        300
       <210> 572
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 572
 gaaagaccga gatagagaga gagacagaga cagagagcga gaccgtgatc gggacagaga
                                                                         60
 aagagaacgc accagagaga gagagaggga gcgtgatcac agtcctacac caagtgtttt
                                                                        120
 caacagcgat gaagaacgat acagatacag ggaatatgca gaaagaggtt atgagcgtca
                                                                        180
cagagcaagt cgagaaaaag aagaacgaca tagagaaaga cgacacaggg agaaagagga
                                                                        240
 aaccagacat aagtcttete gaagtaatag tagaegtege catgaaagtg aagaaggaga
                                                                        300
       <210> 573
       <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A,T,C or G
      <400> 573
ggctgcgagg ttttcggctt tggctcctga tatgcagcga cagaattttc ggcccccaac
                                                                        60
tecteettae eetggteegg gtggaggagg ttggggtage ggaagcaget teeggggaac
                                                                       120
cccgggcggg ggcggaccac tgccgacctc tnnnnnnnn nggnacggna ntacnaataa
                                                                       180
enenceaceg taegegeeet natennggne ntaeegtnee aggtgetnnn naagntneae
                                                                       240
caggeectaa eeggggttet ggenganene aatggeectg aangaegeeg nenageaceg
                                                                       300
      <210> 574
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 574
agattatgag catgtagaag atgaaacttt teeteettte eeaceteeag eeteteeaga
                                                                        60
gagacaagat ggtgaaggaa ctgagcctga tgaagagtca ggaaatggag cacctgttcc
                                                                       120
tgtacctcca aagagaacag ttaaaagaaa tatacccaag ctggatgctc agagattaat
                                                                       180
ttcagagaga ggacttccag ccttaaggca tgtatttgat aaggcaaaat tcaaaggtaa
                                                                       240
aggtcatgag gctgaagact tgaagatgct aatcagacac atggagcact gggcacatag
                                                                       300
      <210> 575
      <211> 300
      <212> DNA
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<213> Homo sapiens
      <400> 575
qtccqaaqaa aaagactgtg gtggcggaga tgctctctcc aatggcatca agaaacacaq
                                                                         60
aacaagtttg cetteteeta tgtttteeag aaatgaette agtatetgga geateeteag
                                                                        120
aaaatgtatt ggaatggaac tatccaagat cacgatgcca gttatattta atgaqcctct
                                                                        180
gagetteeta cagegeetaa etgaatacat ggageataet taceteatee acaaggeeag
                                                                        240
ttcactctct gatcctgtgg aaaggatgca gtgtgtagct gcgtttgctg tatctgctgt
                                                                        300
      <210> 576
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 576
aagagaaget gagaettetg ettecacace eeetgeaagt getttettga aggeetgggt
                                                                         60
gtatcggcca ggagaggaca cggaggagga ggaagatgag gatgtggata gtgaggataa
                                                                        120
ggaagatgat tcagaagcag ccttgggaga agctgagtca gacccacatc cctcccaccc
                                                                        180
ggaccagagg gcccacttca ggggctgggg atatcgacct ggaaaagaga cagaggaaga
                                                                        240
ggaagetget gaggaetggg gagaagetga geeetgeeee tteegagtgg eeatetatgt
                                                                        300
      <210> 577
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      \langle 223 \rangle n = A,T,C or G
      <400> 577
actogagacg ctgaggcagg agaatogott gaaccoggga ggcggaggtt gtagtgagot
                                                                        60
gagategtge caetgeacce cagettggge aacagageaa aactetgtet ttaaaaaaaa
                                                                       120
annnnnnnn nnnnnaacaa acaancaaaa aaaaccttat atggnctggg ctgggcgtgg
                                                                       180
ngccttatgc ccacaatccc agcnttttgg naggccagga tgggaggatn acttganccc
                                                                       240
anaantttga naccagcctg ggctacanag tanggccccn tntntacaaa aaaaccttaa
                                                                       300
      <210> 578
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 578
ggtagactgg ctagggatcc tggacccagg gttccacgta gcaacacctg ctgagttctc
                                                                        60
tgggttttct tcctgcctca tgtagcccag acttggagct gaagaagctg gaaacatgga
                                                                       120
aacaccaaca gctacagacc aaaaaaagtc ccaacaaagg cctgtcagtc tgccagcctg
                                                                       180
ttetgtggat ttecaactca agattgcage atcaactcac acctgaagtt etggetteee
                                                                       240
tacaaacttt gaacttgcca gtccccacaa tggcataagc caattcctta aaatgaatgt
                                                                       300
      <210> 579
      <211> 300
      <212> DNA
      <213> Homo sapiens
```

<220>

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<221> misc feature
       <222> (1)...(300)
       <223> n = A,T,C or G
       <400> 579
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                                                                       60
 aggactgaca getageagea gaaacaatag teaeggaggt tgagaacagg etggttaaca
                                                                      120
 tggtgaaatg ccatctctat taagaataca aaaattagct aggtatggtc gcagacacct
                                                                      180
 gtaatcccag ctccttggga ggctgaggtg nnnnnnnnn ttgaacccnn gaggnggnag
                                                                      240
 ctgctgtnnn cnngactcgn natatnactg cacctgggng actgcagtga anctttatct
                                                                      300
       <210> 580
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 580
atacactgca tttgctggtg ctgtttttat atagtgaagc aacagctgta cagcaaaata
                                                                      60
ataaaatact cacttcttcg ttaaaaaaaa aaaaatttac ttcttacaat tctggaggcc
                                                                     120
aggaagacca tgatcaggtg ccagcatctg ggaagggcct tettgctgtc ctcccatggc
                                                                     180
agaagatgga agggcaaggg agagctaaca tgctcccgca aacccttttt ataatggcat
                                                                     240
caatcaaata tgaggccaga gtccttgtga cctaatcatc tcccaaaagg ctccgcctcc
                                                                     300
      <210> 581
      <211> 283
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(283)
      <223> n = A,T,C or G
      <400> 581
gtcctaaagc cgctgaagca aaaaccatga taaaacattc tgctttcttt tcttttacaa
                                                                      60
120
nnnnnnnnt nttngnngna aaaangggtt ttgnncnngg nannaaccan tnnaantnna
                                                                     180
aanntnncaa anaggggtna nctttntnnc tnancttttn aaaangttna tnnnaatnnc
                                                                     240
cngnnaaanc cancnnggtn tngccntnna aaggtnacct aaa
                                                                     283
      <210> 582
      <211> 283
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(283)
      \langle 223 \rangle n = A,T,C or G
      <400> 582
cccaacnata gccntttcna nnnttaaagg tttttgnant nctgggccnt ncngacgtna
                                                                     60
nncctnancn nttttttaag enggtttgee nngggnneng gtggnnnntn nggggtnntt
                                                                    120
ggtnnctggg ggcnanancn acttncctnc cccgggccat ncntnnnnn nnntgtagga
                                                                    180
aagttettea etttttete tgagggetgg gggttggggg agteageatg attatattt
                                                                    240
aatgtagaaa atgtgacatc tggatataaa atgaaaataa atg
```

```
<210> 583
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 583
gtcgtcttta atttgtctca tcagtgcctc catgtgtttt tgatgccttt gaactggtat
                                                                         60
ttttaaaatt tcaatttcta attqttcatt ataqaaacac aattqqqttt tatatattqq
                                                                        120
cattgtattt tgcaactttc ctaaactcac tagtaattct agtagctttt tttggtagat
                                                                        180
tettaaggat tttetgtgta aatagteatg teatttgtga ataaageeat tttttttee
                                                                        240
ttttcaaatt ttgtgccttt tatttcttat tcttaccata tcacattggc aaagacctcc
                                                                        300
      <210> 584
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 584
aaaatggaga agccaaaatt acagaggcac cagcttctga aaaagaaatt gtggaagtaa
                                                                        60
aagaagaaaa tattgaagat gccacagaaa agggaggaga aaagaaagaa gcagtggcag
                                                                        120
cagaagtaaa aaatgaagaa gaagatcaga aagaagatga agaagatcaa aacgaagaga
                                                                       180
aaggggaagc tggaaaagaa gacaaagatg aaaaagggga agaagatgga aaagaggata
                                                                       240
aaaatggaaa tgagaaagga gaagatgcaa aagagaaaga agatgaaaaa aaggtaagac
                                                                       300
      <210> 585
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C \text{ or } G
      <400> 585
gtccagaaat actctgatac tagctatggt cagcaacatt taatgaaaac ccttatgtta
                                                                        60
aaaataaacc cctgcctcct ggcttcaagc gattctcctg cctcagcctc ctgagtagct
                                                                       120
gggagtatag gcacgtacca ccacacccag ctaatttttt gtatttttac tagagatggg
                                                                       180
tttcacagtg ttagccagga tggtttcgat ctcctgacct catgatccga ccgcctaggc
                                                                       240
ctcccagagt gctgagatta caggcgtgag tcactgtgcc cggcctcnnn atgttaggaa
                                                                       300
      <210> 586
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 586
caagggcctc tggatggaat gtgccacaca cagcacaggc atcacccagt gtgacatcta
                                                                        60
tagcaccett etgggeetge eegetgacat ceaggetgee caggecatga tggtgacate
                                                                       120
cagtgcaatc tcctccctgg cctacttctc aagcttccct ccaaagaaac tgattggccc
                                                                       180
tggaacctcc atcccactct tgttatgact ccacagtgtc cagactaatt tgtgcatgaa
                                                                       240
ctgaaataaa accatectae ggtateeagg gaacagaaag caggatgeag gatggaggae
                                                                       300
      <210> 587
      <211> 300
      <212> DNA
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<213> Homo sapiens <400> 587 ggactaactt acagaggagc tgtgtatcct gaagattcag cgactggcaa ggaatttcct 60 tgggagcaat gtgtgaggga ggccatctga ggagatctgt ggctttcttt tgttgtggga 120 atctggctta tggatgaatc tacgacacag gattgtgaaa ttacagctct ttgggaacaa 180 aaggaaggca gtattgcatg acttagtttc ccagcttcac tttccctttg gcatggtgag 240 tttggggtct tgagagtcta ttttctttca cacccatcag cactgttaag taagcaggaa 300 <210> 588 <211> 300 <212> DNA <213> Homo sapiens <400> 588 aaaaacctgg gtatgtatct agaagtggaa aaacaaaaaa aggaaataag ttatgaaaat 60 aaaaaccatg tettgagetg ggtgegetgg tgtgtgeeta tateeetaga tteteaagag 120 gttgagacag gaggatcact tgagcccagg agttcaagtc caacttgggc aacatgacaa 180 gaccettgte tetttaaaaa ageaacteaa accatgtett gaaaagetat ttaatggtea 240 gacacgatgg ctcacgcctg taatcccagc actttgggag gccgaggcag gcggatcact 300 <210> 589 <211> 300 <212> DNA <213> Homo sapiens <400> 589 cctcctactc ccaaacaaat ctttggggaa aaaaaaacta ccaactgtca gccatgggcc 60 tgacggcgct aagctctggg gctccgtgca ctgacgtggg gccagccaca gggaggcggg 120 gatcaagtag cggaggccag gattttggcc acctcccggg caagttgcag ggcagtggcg 180 ccgggagcaa aagcagcatg atgcagctca tgcacctgga gtccttttat gaaaaaacct 240 cctcctgggc ttatcaagga agatgacact aagccagaag actgcatacc agatgtacca 300 <210> 590 <211> 300 <212> DNA <213> Homo sapiens <400> 590 ggggcggagg cgggagaggc gagctcgcga tgagtggtct cggcaggctc ttcgggaagg 60 ggaagaagga gaaagggcca acccctgaag aagcaataca gaaactgaag gagacagaga 120 agatactgat caagaaacag gaatttttgg agcagaagat tcaacaggag ctacaaacag 180 ccaagaagta tgggaccaag aataagagag ctgccctaca ggctttgcgg aggaagaaaa 240 gattcgaaca gcagctggca caaactgacg ggacattatc caccctggag tttcagcgtg 300 <210> 591 <211> 300 <212> DNA <213> Homo sapiens <400> 591 gagaagetga egggcatgtg gtggaaacag etggtggeeg gegeagtgge aggtgeegtg 60 tcacggacag gcacggcccc tctggaccgc ctcaaggtct tcatgcaggt ccatgcctca 120 aagaccaacc ggctgaacat ccttgggggg cttcgaagca tggtccttga gggaggcatc 180 cgctccctgt ggcgcggcaa tggtattaat gtactcaaga ttgcccccga gtcagctatc

aagttcatgg cctatgaaca gatcaagagg gccatcctgg ggcagcagga gacactgcat

240

```
<210> 592
       <211> 275
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc feature
       <222> (1)...(275)
       <223> n = A, T, C \text{ or } G
       <400> 592
 gaaatgtgta tttcagtgac aatttcgtgg tctttttaga ggnnnnnnnn nnnatatcct
                                                                          60
 tggctttnta ggcnatatgc tcanagtgcg acagcggnac cntgccctca natnettaen
                                                                         120
 naaqctttqa ntaqqnccat nnnnnqctac ntccctqaan tcctnccnnc cctcactqqc
                                                                         180
 tgccctnaca ngccanctga cgantgncct taaaggcatt aacnegcntc nnttgtggng
                                                                         240
 tectengget tanggagnna agaggtgget ettga
                                                                         275
       <210> 593
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 593
 tgacattgtc agtgtgaaat ttaacagact ttggttttag gagttaggtt taggttgcag
                                                                          60
 acctaaagtt gcagttgaca tqtccttqtt ttataggagg atatacatcc tgaaagtttt
                                                                         120
 agggactggc aaagaattta ctgctgagca atttgtgatt gcagtcacct ggagattcat
                                                                         180
 gaggettttt geetttttgt ggggatetgg ttaatgeata atattttgae acaaggttge
                                                                         240
 aaggtaacag gtatccattt gggaaaagaa tgacagtttt ggagaacatt agttctgcag
                                                                         300
       <210> 594
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc feature
       <222> (1) ... (300)
       <223> n = A, T, C or G
       <400> 594
acctaagact gctttgaaac ataaagtaat aatnaaanaa atgggctggg tgtggtggnt
                                                                         60
tatgettata atectagene tttgggagge tgaggeggga ggatentttg ageteaggag
                                                                        120
tttnagacen gtttgggegg teceagttat caggaggetg aggtgagagg gattacttgt
                                                                        180
gcccaggagg tcaaggctgc agtgagctgt gattgtgcca ctgtactcca gccctggcaa
                                                                        240
cagagagaga accetgtete aaaagaaagg gggggggagg aacggaggaa gggaaggagg
                                                                        300
       <210> 595
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 595
attatggtgg aaggggaagc aaatqcccta cttcacatgg tggcaggaag gagaagaatg
                                                                         60
agaaccaaat gagggagaag ccccttataa aaccatcaga tcttgtgaga acttactatc
                                                                        120
atgagaatag catgggggaa actgccctgt gattcaatta cttcccacta ggtcactccc
                                                                        180
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240

accatacatg gagattatag gaactacaat ttaggatgag atttgggtgg gaacacagcc

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aaaccatatc aagtattaac agcagaatta accaagctga ggaaagactc tcagagctca
                                                                      300
       <210> 596
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 596
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gegggaegge attgggteag tgeggtaeca ggtettggag gtgtetegge aaccaetett
                                                                      120
caccaatatc acagtggaca ttgggcggcc tccgtcgtgg ccccctcggg gctgacacta
                                                                     180
atggacagag geteteggtg ecgaagattg cetgecagag gaetgaceae ageetggetg
                                                                     240
gcagctgctc tgtggaggac ctccaggact gagactgggc tctgttttcc aagggtcttc
                                                                     300
      <210> 597
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 597
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                                                                      60
acatacactg gggaaaagat aatgtettta ataaatggtg etgggaaaac tggatateca
                                                                     120
tatgcagaag aatgaaacta gacccccatc tcttagcata tacaaaaatc aaaattaatt
                                                                     180
aaaaagttaa atctaagacc tcaaactatg aaacagctaa aagaaaacat cggggaatct
                                                                     240
ctccaggaca ttggagtggg caaagatttc ttgtgtaata cctgacaaac aggcaaccaa
                                                                     300
      <210> 598
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 598
ggtatttgtt cttgaaccac accegttega teetagagtt etettttetg etggteatga
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tggaaacgtg atagtgtggg atctggcaag aggagtcaaa atacgatctt atttcaatat
                                                                     120
gattgaagge caaggacatg gegeagtatt tgaetgeaaa tgeteteetg atggteagea
                                                                     180
ttttgcatgc acagactete atggacatet tttaattttt ggetttgggt ecagtageaa
                                                                     240
atatgacaag atagcagatc agatgttett teatagtgat tateggeeae ttattegtga
                                                                    300
      <210> 599
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 599
agaaagatca ctgctgttta cagcgccttg tgcagcctta gattttaata ttcttttgtc
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attgttacat ctcatagagt aaagctctta ttaccttgat cctgagtcag aaatcccacc
                                                                    120
180
tacagggatt ttgtggactg tggcccctgt cccgaggttg gcaccttcag ttcagcacag
                                                                    240
cctgagcagt gagaaggtct gaaaggagag tatatagtta agatccttga gaaagggctg
                                                                    300
     <210> 600
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 600
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atgacetace teacageagg gatgetggae caacetgget tteeegaetg etceategag
                                                                        120
gcagccatgg tgaaggtgtt cagctccgag gccqcctggc agtgtgtgag tgaggcgctg
                                                                        180
cagatecteg ggggettggg etacacaagg gactateegt acgagegeat actgegtgae
                                                                        240
accegeated tecteatett egagggaace aatgagatte teeggatgta categeeetg
                                                                        300
      <210> 601
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 601
ggatattcat taccetgaga atgaaatgae etgeaatteg aaaateaget gtateagttg
                                                                         60
gagtagttac cataagaacc tgttagctag cagtgattat gaaggcactg ttattttatg
                                                                        120
ggatggattc acaggacaga ggtcaaaggt ctatcaggag catgagaaga ggtgttggag
                                                                        180
tgttgacttt aatttgatgg atcctaaact cttggcttca ggttctgatg atgcaaaagt
                                                                        240
gaagetgtgg tetaceaate tagacaacte agtggcaage attgaggcaa aggetaatgt
                                                                        300
      <210> 602
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 602
gccttttgtg gggtctcata cataactcag tttccacaaa gctgtgcccc agctcaqccc
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tatggataga agcatggtct ggggttcctt tgctgaccag ggtgtgtgct ttgtccaagt
                                                                       120
tactgacctt cccaaacctc atcaatgcac ataaaaagag cacttgcaaa caatgaatct
                                                                       180
agacatggac cttcacaaag aaataactca aaatggatcc caggcctaaa tgaaaaatga
                                                                       240
aaaactataa aactcctaga agataacata aaagaagatc tagatgacct agggtttggc
                                                                       300
      <210> 603
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C \text{ or } G
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                                                                        60
cagttttntt caccegetge agecgtteeg tnecaaacan agggeenene ananneecen
                                                                       120
cgntntatat aaggaggaaa acgggaaaga atataaagtt aaaaaaaagc ctccggnttc
                                                                       180
enctactgng tanacteetg ntttttcaag encetgeaga ttttgatttt tttgntgntg
                                                                       240
ttgttntccn ccnttgctgn tgntgcaggg gtactattgt ttaaaaacag gaaaaaaaat
                                                                       300
      <210> 604
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 604
cttactttga tcctcgtgag gcatacccag atggaagtag caaagaaaag agaagagcag
                                                                        60
cagttgccca ggccttagct ggcgaagtca gtgtggtgcc tccatctcgt ctcatggcat
                                                                       120
tgctgggaca ggcactgaag tggcagcagc atcagggatt gcttcctcct ggtatgacca
                                                                       180
```

```
tagatttgtt tcgaggcaag gcagctgtca aagatgtgga agaagaaaag tttcctacac
                                                                        240
aactgagcag gcatattaaq tttqqtcaqa aatcacatqt qqaqtqtqct cqattttctc
                                                                        300
      <210> 605
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 605
gaacattegg actegagata ategtegeet tggggagtgg gaettgeetg aggetgtgea
                                                                        60
gctgactggt ggagctaccg aacacgaggg tcccatatgc ccgaagaaaa tttctggccc
                                                                        120
tttgtacata catgacgcca accactgcga gtgccatcag ctctctcttg ttgnnnnnn
                                                                        180
ccccgnnat gntgacgntg nngannnctt anaccntttt nnnnctnnga aaggaggnnt
                                                                        240
gattgengnt necetgagat ntggetteee aagageactt attgaeeett eeteaggeet
                                                                        300
      <210> 606
      <211> 298
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(298)
      \langle 223 \rangle n = A,T,C or G
      <400> 606
cccceggant aaggntgnnn tatnntnncc anaaaaaann gggncnatna tgngntcgng
                                                                        60
aaggntnngg aacaacaagg actgcntnat tggaagnggn cncaggnttg aanccaaagn
                                                                       120
taaangagtg aatnaggtgn tnntggggaa tgaccngctc atggagatnt gagttctgag
                                                                       180
caagtcagac teetteettt tggeeteeaa agecacagat gttgeeegge ceaectgttt
                                                                       240
aactetgtat ttattteeca ataaaqaaqq qetteeaaaq qeatqetqqa qaettqtq
                                                                       298
      <210> 607
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 607
atggtgtttt cacctggaag ctgagaagaa aggggcttta atggaacaaa tagcacatca
                                                                        60
agctgttgta atgcagttta ttatggaaat ggccaaaaac tgtaatgtgg atccaagagg
                                                                       120
gtgttttcgt ttatttttcc agaaagccaa agcagaggaa gaaggttatt ttgaagcatt
                                                                       180
caaaaatgaa cttgaagctt tcaagtcaag agtaagactt tattctcaat cacaaagttt
                                                                       240
tcaacctatg acagttcaga atcatqttcc ccattctqqt qttqqatcta taqqtttatt
                                                                       300
      <210> 608
      <211> 296
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
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<222> (1)...(296)
      <223> n = A, T, C or G
      <400> 608
atccaggtgt ttctgatgca cagtgaaatt ggggtaccac tggtattagg ttgggtatgg
                                                                         60
caactttttc atcacttgtt ttatgtagtt gtctgatcaa ttgtgaaaac ataatgaatg
                                                                        120
ttggaaatgg aacagtaaaa taacqaaaqc caactttttt tttttttt ttnnnnnnn
                                                                        180
nnnnnnnnt tnncccccng ncngnanngc aggggcccaa nntnggntnn ntgnanccnc
                                                                        240
cncenceggg ntnnncecet ttntenngee taaceencee nagnaenngg aactae
                                                                        296
      <210> 609
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 609
cgacaatcag tgattttgct gtatttctca caatagtaat aatggttaca attgactacc
                                                                        60
ttgtaggagt tecatetect aaactteatg tteetgaaaa atttgageet acteateeag
                                                                       120
agagagggtg gatcataagc ccactgggag ataatccttg gtggacctta ttaatagctg
                                                                       180
ctattcctgc tttgctttgt accattctca tctttatgga tcaacaaatc acagctgtaa
                                                                       240
ttataaacag aaaggaacac aaattgaaga aaggagctgg ctatcacctt gatttgctca
                                                                       300
      <210> 610
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 610
agaataacta ccagacaaca tttgttaaaa ctcaggacag tatgtatttt aaataagcaa
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gtgcatgtgt gaaaatggct cattcagttt ataaaatatt acattaaatt tqaqqtttct
                                                                       120
gttttttttc ttttgtgaca gtcttgctct gttccccatg ctgtattgca gtggctccag
                                                                       180
ttcacctcac tgtaacttcc acatcctggt ttcaagcaat ttgtgcctca gcctcccaag
                                                                       240
tagctgggat tacagtcatg ccaccatgtc cagataattt ttatattttt ttgtatagat
                                                                       300
      <210> 611
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 611
agatgggtta aaacttaaat gtcacatctg aaacagtaaa aatcctagaa gaaatcctag
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gaaaaactct tctggacatt ggcctaggca aagaatttat gatgaagacc tcaaaagcaa
                                                                       120
acataacaaa accaaaaata gacaaatgag atttaattag aaaaacttct gcacagtaaa
                                                                       180
agtaataatc aacagttaat agacaaccta tagaatggga gaaaatatat gtaaattata
                                                                       240
catctgacaa agaactaata tccagaatct acaaagaact caacaagaaa aaaaccaacc
                                                                       300
      <210> 612
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 612
tectggetgt taggatttgt tegtgtttgg gagacettta gagegtggtt aaacecatat
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gttgggattt atgctgcttt tatggtagca ataccctata ttaagatttg aagtagaccc
                                                                       120
ggaaagttag tggccggtta gctcagttgg ttagagcgtg gtgctaataa cgccaaggtc
                                                                       180
gcgggttcga accccgtacg ggccagtggg tggctttttt ttgtgtgtgt tttgttttct
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gaccctctgc tgttatccgg aagtttctac ccggagccag ttgccttctg gtaacagaat
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 613
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tgagatgatc acaggaactg acttggtgga gtggcagctt agaattgcag caggagagaa
                                                                       120
gatteetttg agecaggaag aaataactet geagggeeat geettegaag etagaatata
                                                                       180
tgcagaagat cctagcaata acttcatgcc tgtggcaggc ccattagtgc acctctctac
                                                                       240
tectegagea gaecetteca ecaggattga aactggagta eggcaaggag acgaagttte
                                                                       300
      <210> 614
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 614
agacagtcaa getgeattge aacactgeat gtetgaetaa cagcatacat tgteetgaag
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aagcatetgt agggaateea gaaggagegt teatgaagat gttacaagee eggaageage
                                                                       120
acatgagcac tcagctgact attgagtcgg aggcgccctc agacagcagt qqcatcaact
                                                                       180
tgtcaggett tgggggtgat cagettgaaa ttcagetaac cgagcageta cggtcectca
                                                                       240
tececaacga ggatgtgaga aagtteatgt eteatgttat eeggacettg aaaatggaat
                                                                       300
      <210> 615
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 615
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gggcaaggaa cacctggccc cgcccggagc aaaaaactgc tcaaaccaca aacqataqca
                                                                       120
ggaaaggcct gtgccttggc agcatgtttt tgctgcagat aatcagccag agcctgtttc
                                                                       180
totgeteete getgagattg etttgtttee cataaaqatt qettttaqet aatetacaat
                                                                       240
ctatagaagc aatgcttatc actggctttc tgtcaataaa tgtgtgggtc aagctctgtt
                                                                       300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
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      <223> n = A, T, C or G
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                                                                        60
tetgeacgee egecegeaag etgetetgge tggtgetgea gecettette tacteactae
                                                                       120
ggccgctctg cgtccacccc aaggccgtga cccgcatgga ggtgctcaac acgctggtgc
                                                                       180
agetggegge egacetggee atetttgeee tttggggget caaqeeegtg qtetacetge
                                                                       240
tggccagete etteetggge etgggeetge acceeaatng gggccaette gtggccgage
                                                                       300
```

<210> 617

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<211> 300
       <212> DNA
       <213> Homo sapiens
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       <223> n = A, T, C or G
       <400> 617
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                                                                      60
 ctcatatgag tgagaaagct taccagtgca gcgaatgtgg gaaagccttc cgagggcact
                                                                     120
 cggacgtttt ctaggcatca gagtcaccac agcagtgaga ggccttatat gtgtaatgaa
                                                                     180
 tgtggaaaag ccttcagcca gaactcgagc cttaaaaagc accaaaagtc tcacatgagt
                                                                     240
 gagaageeet atgaatgeaa tgaatgtggg aaggetttta ggeggagete aaaceteate
                                                                     300
      <210> 618
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 618
ecceaacetg cactetacce acceccatea ectactecag eteccaactt ttgtggactg
                                                                      60
ageggeegea gagaetgggt egeettggat teeetetgee teegaggaee ecaaaagaea
                                                                     120
cccccaaccc caggccagcc ggccctgctc tggcgcgtcc aaaatactac ctagcacagg
                                                                     180
cctctgctcg aggcaccccc aaactaccta tgtatccagc cccagagggc ctccattccc
                                                                     240
aggaagteee tatgtateee aacaetggea gacaeeeage accaeeetee cagaeeegea
                                                                     300
      <210> 619
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 619
aatteegttg etgtegaatt gtteetgtee tgeeceaact gateaatega eettgtgaca
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ttcttcttct ggacaatgaa tcttatgatc tccccaccat ggaccctgtg accccctcct
                                                                    120
ctgctgacaa tagataacca cctctaactg taacattcca ctgcctacct cagtcctata
                                                                    180
aagetgeece teteetatet acettegetg actetettt egtaeteage ceaettgeae
                                                                    240
300
      <210> 620
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 620
agaatacaag ctacttgttc tttttgcagg atcccatcga ttcgaattcc gttgctgtcg
                                                                     60
aattgtteet gteetgeeee aactgateaa tegaeettgt gaeattette ttetggaeaa
                                                                    120
tgaatcttat gatctcccca ccatggaccc tgtgaccccc tcctctgctg acaatagata
                                                                    180
accaceteta actgtaacat tecaetgeet aceteagtee tataaagetg ecceteteet
                                                                    240
atctaccttc gctgactctc ttttcgtact cagcccactt gcacccaagg aataaacagc
                                                                    300
     <210> 621
     <211> 300
     <212> DNA
     <213> Homo sapiens
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<400> 621
actatagaat acaagctact tgttcttttt gcaggatccc atcgattcga attccgttgc
                                                                       60
tgtcgaattg ttcctgtcct gccccaactg atcaatcgac cttgtgacat tcttcttctg
                                                                      120
gacaatgaat cttatgatet ecceaceatg gaccetgtga eccecteete tgetgacaat
                                                                      180
agataaccac ctctaactgt aacattccac tgcctacctc agtcctataa agctgcccct
                                                                      240
ctectateta cettegetga etetettte gtaeteagee caettgeace caagtgaata
                                                                      300
      <210> 622
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 622
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                                                                      60
aagtgtaatt acactaataa agctggatca cctgaggtta ggagtttgag agcagcctgg
                                                                     120
ccaacatggc aaaaccctgt ctctactata aatacaaaaa ttagccaggt gtggtggcag
                                                                     180
ggcacttgtg atcctatcta ctcgggaggc tgaggcagga gaatcgcttg aacccaggct
                                                                     240
gtaaaggttg cagtgagcca agatcatgcc actgcactcc agtctgggtg tcagaatqaq
                                                                     300
      <210> 623
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 623
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120
agttettatt atttacatta taaatattaa etggttttat attgttaaga caaaacaetg
                                                                     180
gtaaaagttt caacacctcc cttttgcttg tataccataa atgggcagtt tctgaaattt
                                                                     240
tggataaagc atcaagaact cctttttctg aaacgttcct ccttttttag tgcctaatta
                                                                     300
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      <211> 261
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
     <222> (1) ... (261)
     <223> n = A, T, C \text{ or } G
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                                                                     60
acctgtatga gtgccttctt gagctcaccg gtgagcatgg ctccgctggt gtaatccttc
                                                                     120
ctgatctgct cgagcttgtn nnnnacctgg aggnntangg tatnnnncat nnttnanang
                                                                    180
enegnatnat netgnaneta enengtetgn naeggtattn angnenantn etatnatgna
                                                                    240
annnannntn ngngnctntn c
                                                                    261
     <210> 625
     <211> 298
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     <220>
     <221> misc feature
     <222> (1)...(298)
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<223> n = A, T, C or G<400> 625 tttttttgag acggagtctt gttctgttgc caggctggag tgcggtggtg caatctcagc 60 teactgeaat etecacetee tgggtteaag aggtteteet geeteageet eetgagtage 120 cggggagcta caagcatgca ccaccacacc cagctaattt tttttttt nnnnnnnnn 180 nnnnnntgtc ncccaggett gagtgcaggg genenatetn ggntnantgn aanntntgte 240 tccngggttn atgccnttct cctqnttnan cntcccnant antcccagga ntagctgg 298 <210> 626 <211> 300 <212> DNA <213> Homo sapiens <400> 626 ggtaaggatt tggggcacag taccaggagg ggggcttggt gccagacctc atgaggaaga 60 aggattttcc tatgtacaga gaaggggacc ctgtcctgtt gggaggtgct gtgcaaacct 120 aaccaagtta ctaacccctc tgttttctgt gctacacaaa ggggataaat acaagcttcc 180 ctctctaqcc aattctattt qqttcctqaq tttqqaaaqt qataqatact gattttctat 240 gattttatga ggacttaaat aagctcctat ggaaagtgtt ttgtgcagtg ccgtgcccat 300 <210> 627 <211> 300 <212> DNA <213> Homo sapiens <400> 627 gegacatetg teaceceatt gategeeagg gttgattegg etgatetgge tggetaggeg 60 ggtgtcccct tcctccctca ccgctccatg tgcgtccctc ccgaagctgc gcgctcggtc 120 gaagaggacg accateceeg atagaggagg accggtette ggteaagggt atacgagege 180 cgtaattgac acatctctta tttgagaagt gtctgttgcc ctcattaggt ttaattacaa 240 aatttgatca cgatcatatt gtagtetete aaagtgetet agaaattgte agtggtttae 300 <210> 628 <211> 300 <212> DNA <213> Homo sapiens <400> 628 ggatgaccca tgccaaaaat actatgagct cttactagtc aaccctattt ggttggtccc 60 accaacaaag gcacttgcag ttacattcac cacatttgta acggagccat tgaagcatat 120 tggaaaagga actggggaat ttattaaagc actcatgaag gaaattccag cgctgcttca 180 tettecagtg etgataatta tggcattage cateetgagt ttetgetatg gtgetggaaa 240 atcagttcat gtgctgagac atataggcgg tcctgagagc gaacctcccc aggcacttcg 300 <210> 629 <211> 295 <212> DNA <213> Homo sapiens <220> <221> misc feature <222> (1)...(295) <223> n = A, T, C or G

<400> 629

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                                                                          60
 aggtgetnat gteatgetge aatgteeane ageagnaggn ntttgatgtn angngengga
                                                                         120
 gnngagtgga ccaggggtgc tgtgtnatna nttgattcag nggcttatgg catcactgcc
                                                                         180
 ttctgttncc gggggagcat ggatctagat gtcctcgcct ctgaaaacca agtgtcagag
                                                                         240
 ccccttcccc ttgtttttat tttactgtta taataattat taacttcctt gtaat
                                                                         295
       <210> 630
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 630
 tggtctgctc accagaggtt cttcaaatac ttatgcatag catccaaagt taaaagggtt
                                                                         60
 gtgcaactag ctcgagagga aatcaagaat ggaaaatgtg ttgtaattgg tctgcagtct
                                                                        120
 acaggagaag ctagaacatt agaagctttg gaagagggcg ggggagaatt gaatgatttt
                                                                        180
gtttcaactg ccaaaggtgt gttgcagtca ctcattgaaa aacattttcc tgctccagac
                                                                        240
 aggaaaaaac tttatagttt actaggaatc gatttgacag ctccaagtaa caacagttcg
                                                                        300
       <210> 631
       <211> 290
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc_feature
       <222> (1)...(290)
       \langle 223 \rangle n = A,T,C or G
       <400> 631
gectagggcc ccctagcacc ccactcgatc accgagggta ccagtccctg tcagacagcc
                                                                         60
ccccgggggc ccgagtcttc actgagtcag agaagaggcc actcagcatc caagacagct
                                                                        120
tegtggaggt atnnnnnnn nnnnnnngge enetggttea tgatntggnt nntanatgea
                                                                        180
anaggetgtg getnetnaag teetaaggat tneteantga teanngatee agggeegtte
                                                                        240
atgaaccact gggctggatt tgactgttga ntgtggnagn aaatgcccgt
                                                                        290
      <210> 632
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 632
gtggggtcag ttctggtctg ctcaccagag gttcttcaaa tacttatgca tagcatccaa
                                                                         60
agttaaaagg gttgtgcaac tagctcgaga ggaaatcaag aatggaaaat gtgttgtaat
                                                                        120
tggtctgcag tctacaggag aagctagaac attagaagct ttggaagagg gcgggggaga
                                                                       180
attgaatgat tttgtttcaa ctgccaaagg tgtttgcagt cactcattga aaaacatttt
                                                                       240
cctgctccag acaggaaaaa actttatagt ttactaggaa tcgatttgac agctccaagt
                                                                       300
      <210> 633
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 633
cacagteett etggaageea gaeeegaage cacagtagea gtgeeagete ageagagagt
                                                                        60
caggacagca ggaagaagaa gaagaagaag gaaaagaaaa aacacacaga aacatataaa
                                                                       120
gcataagaag cataagaaac atgcaggcac tgaagtggaa ttggaaagac gccatctaca
                                                                       180
```

```
cgaccacagg aaccagaaga ggacctacac tcagattaga gcgtgaggaa gtgagttctt
                                                                        240
ggagacgtgc tgatgacagg aaagatgacc gggtggaaga gcgggaccct cctcgtcgag
                                                                        300
      <210> 634
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 634
cccacacteg gacactgtgg aattetacca gcgcctgtcg accgagacac tettetteat
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cttctactat ctggagggca ctaaggcaca gtatctggca gccaaggccc taaagaagca
                                                                        120
gtcatggcga ttccacacca agtacatgat gtggttccag aggcacgagg agcccaagac
                                                                        180
catcactgac gagtttgagc agggcaccta catctacttt gactacgaga agtggggcca
                                                                        240
geggaagaag gaaggettea cetttgagta eegetaeetg gaggaeeggg aceteeagtg
                                                                        300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 635
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                                                                         60
tgggattaaa ggcgtgagcc accgtacctg gcccttggtg gaatctttag ggttttctat
                                                                        120
tcatacatat aaaatcatat cattggcaaa cagagataat tttacttcct cctttccaat
                                                                        180
ttggatgcct tagatttctt ttccttgcct aactgctctg tctagaactc ccagcactat
                                                                        240
gctgaataga gtggcaagag caggcatttg ccttggtcct aaccttacag aaaaatcctt
                                                                        300
      <210> 636
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1) ... (300)
      \langle 223 \rangle n = A,T,C or G
      <400> 636
gctgcccaac acgctgtttg gggatgtggc catggtggtg gaattcttga gctgttattc
                                                                         60
tgggctactt ttaccagatg ctcagtatcc tattactgct gtgtccctta tggaagcctt
                                                                        120
gagtgcagat aagggtggct ttttatacct taacagggtg ttggtcatcc tcttacagac
                                                                        180
cctcctacaa gatgagatag cagaagacta tggtgaatag ggaatgaagc tgtcagaaat
                                                                        240
ccccttgact ctgcattctq tttcagagct ggtgcggctc tgcttgcnca gatctgatgt
                                                                        300
      <210> 637
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 637
ctttgcagct ccccttccac tgagagccac ttccaccatt taataaaatc gtccacatcc
                                                                        60
```

```
atcaactttc aaaccattca tgcaacctga ttcttcctgg atgctgaaca agaacctggg
                                                                        120
taccaacagg gcagggtgta aaaggctgcc accctgactc tccttgagtg ggtnnnnnn
                                                                        180
nnnetgteen ggatggeaac tgetaaaaga gentgaattg taacacatee etaaatgege
                                                                        240
tgttgggctg gagcccaaaa gtgctcatcg aagccctggc acccgcttgc ctgcgtgctc
                                                                        300
      <210> 638
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A, T, C \text{ or } G
      <400> 638
aacctatctg catggacctc tgtggaccac agcgtacctg cccctttctg ccctcctgct
                                                                         60
ccagccccac ttctgaaagt atcagctact gatccagcca ctggatattt tatatcctcc
                                                                        120
cttttcctta agcacagtgt cagaccaaat tgcttgtttc tnnnnnnngn actacannna
                                                                        180
tatgnatnet ggtnegetgg geaagtteae tgngeeeatg etgaaagagg eetgeeggge
                                                                        240
ttangggctg aagagtggtc tgaanaanca ngaactgctg gaanccctca ccaagcactt
                                                                        300
      <210> 639
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 639
agttttcctg tgattagtgt ttttggtgtt gttttatttt ttttcttaca ggaactcttg
                                                                         60
caagaagaaa ggactatgag ttcaacttta gagggagcca tggggactaa acaaaattct
                                                                        120
gaggeeeet caaccateta aatggaette ettetgggee aggacaeteg aaaattaaac
                                                                       180
ctgaaagact ggttcaggcc atgatgggaa gtgggagtcg aacatgcctc atcataccct
                                                                        240
ccagcattaa catcaacaca gaccttaagg ctgataagaa gcatttacaa tctattctct
                                                                       300
      <210> 640
      <211> 299
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(299)
      <223> n = A, T, C or G
      <400> 640
gttagctcga ggggcaaata aagagcacag gaatgtttct gattacacac ctctaagtct
                                                                        60
ggctgcttct ggtggctatg tgaacatcat caaaatatta ctaaatgcag gagctgagat
                                                                       120
taactctaga actggtagca aattgggcat ctctcctctg atgttagcag ctatgaatgg
                                                                       180
gcatacagct gctgttaagc tcctgttaga catgggctct gacataaatg ctcagataga
                                                                       240
aaccaatcgg acactgnnnn nnnnnnnnn ngcttccaag gaagaactga agtggttag
                                                                       299
      <210> 641
      <211> 300
      <212> DNA
      <213> Homo sapiens
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<400> 641
cagagacctg acagtggcaa tgtatggcca cgttactgaa tctacatgtt gcaagagaaa
                                                                      60
aactagcaga tgttcttggc agccctgtca ttcagctata ttgctaaagc actaggtgga
                                                                     120
180
gctggtttaa ttgatggaag ctttgaaatt ggaaatttgc ttgtgattgt atttgtaagt
                                                                     240
tactttggat ctaaactaca cagaccgaag ttaattggaa ttggttgtct ccttatggga
                                                                     300
      <210> 642
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 642
gagagettgg gatgtggtaa tgecagecac acteetggga geegtggeea gateteggea
                                                                     60
tatattatca aaagcacatc agtqccgaag aatcggtcat ctaatgttaa aaccacttaa
                                                                     120
ggaatttgaa aatacaacat gcagcacact gacaatacgt caaagcttgg atttgttcct
                                                                     180
tcctgataaa acagctagtg gtttgaataa gtctcagatc ctggaaatga accaaaaaaa
                                                                     240
gtcagatacc agcatgctgt ctccattaaa tgctgctcgt tgccaagatg aaaaggcaca
                                                                     300
      <210> 643
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 643
gcctgccaga atggaagcat acagatctgg gaccgaaatt tgactgttca tcctaagttc
                                                                     60
cactataaac aggctcatga ctcgggcaca gacacttctt gcgtgacttt ttcctatgat
                                                                    120
ggtaatgtcc ttgcctctcg tggaggtgac gattcattaa aattatggga catccgacaa
                                                                    180
tttaataaac cactttttc agcctcgggt cttcccacca tgttcccaat gactgactgc
                                                                    240
tgtttcagtc cagatgataa gctcatagtc actggtacat ctattcaaag aggatgtggc
                                                                    300
      <210> 644
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 644
ccggagagaa gcagcaggag ggcggcggcg ccgtgcgctg cgacacacct gccaactgca
                                                                     60
ectatettga cetgetggge acetgggtet tecaggtggg etccageggg teccageggg
                                                                    120
atgttnnnnn nnnnnnnntg gcaattaaca acatcttaaa actgactcag ctcacccagt
                                                                    180
cttccatgta ttcacttcct aatgcaccct ctctggcaga cctggaggac gatacacatg
                                                                    240
aageetgtga tgateageea gagaageete aetttgaete tegeagtgtg atttttgage
                                                                    300
     <210> 645
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 645
actgttcatc ctaagttcca ctataaacag gctcatgact cgggcacaga cacttcttgc
                                                                     60
gtgacttttt cctatgatgg taatgtcctt gcctctcgtg gaggtgacga ttcattaaaa
                                                                    120
```

```
ttatgggaca tccgacaatt taataaacca ctttttcag cctcgggtct tcccaccatg
                                                                        180
ttcccaatga ctgactgctg tttcagtcca gatgataagc tcatagtcac tggtacatct
                                                                        240
attcaaagag gatgtggcag cggcaaactt gttttctttg agcgtaggac tttccaaagg
                                                                        300
      <210> 646
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 646
gcgacatcag aagatcattg aggaggcccc agcgcctggt attaaatctg aagtaagaaa
                                                                         60
aaagctggga gaagctgcag tcagagctgc taaagctgta aattatgttg gagcagggac
                                                                        120
tgtggagttt attatggact caaaacataa tttctgtttc atggagatga atacaaggct
                                                                        180
gcaagtggaa catcctgtta ctgagatgat cacaggaact gacttggtgg agtggcagct
                                                                        240
tagaattgca gcaggagaga agattccttt gagccaggaa gaaataactc tgcagggcca
                                                                        300
      <210> 647
      <211> 278
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(278)
      <223> n = A,T,C or G
      <400> 647
ggtgactgcc atcctggagc cctacccctg catccacttc cctctggcca catatgcccc
                                                                        60
tattatctct gctgaaaaag cctaccatga acagctttct gtagcagaga taaccattgc
                                                                       120
tatgetttnn nnnnnnnac etgatgntaa nanntgaace tenntgeggt tnttncannn
                                                                       180
tttnnntntc nantcnnnna cgtcttgntt nntncttnnt nntttctcgc annantttnn
                                                                       240
nathtentnn cetttgnttt thentettet thnntaat
                                                                       278
      <210> 648
      <211> 150
      <212> DNA
      <213> Homo sapiens
      <400> 648
ccccggtcgt gtagcggtgg tatactacgg tcaatgctct gaaatctgtg gagcaaacca
                                                                        60
cagtttcatg cccatcgtcc tagaattaat tcccctaaaa atctttgaaa taagggccg
                                                                       120
tatttaccct atagcacccc ctctagaggg
                                                                       150
      <210> 649
      <211> 277
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(277)
      <223> n = A, T, C or G
      <400> 649
gaagaangcc tatncnnnct attagctana natagtcnnt nnnaatanga naganangtn
                                                                        60
acnnanaang cnananngnn nnagagatag ctcnacntaa agacnggana angatcttcg
                                                                       120
```

```
ccttaatact tttttatttt gttttatttt gaatgatgag ccttcgtgcc cccccttccc
                                                                        180
 ccttttttgt cccccaactt gagatgtatg aaggettttg gtctccctgg gagtgggcgg
                                                                        240
 aggcagccag gggttacctg ccacaaacgg ggaccag
                                                                        277
       <210> 650
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 650
 gaggtagtga cacaggctgt gggagggggt aggggggggagga agtctgtggt gagcaaagtt
                                                                         60
 tgccttatta cactgataaa gtgtaattac actaataaag ctggatcacc tgaggttagg
                                                                        120
 agtttgagaa cagcctggcc aacatggcaa aaccctgtct ctactataaa tacaaaaatt
                                                                        180
 agccaggtgt agtggcaggg cacttgtgat cctatctgct cgggaggctg aggcaggaga
                                                                        240
 ategettgaa eecaggetgt aaaggttgeg gtgagecaag ateatgecae tgeactecag
                                                                        300
       <210> 651
       <211> 300
       <212> DNA
      <213> Homo sapiens
      <400> 651
ggcacagtac caggagggg gcttggtgcc agacctcatg aggaagaagg attttcctat
                                                                         60
gtacagagaa ggggaccetg teetgttggg aggtgetgtg caaacetaac caagttacta
                                                                        120
acccctctgt tttctgtgct acacaaaggg gataaataca agcttccctc actagccaat
                                                                        180
tctatttggt tcctgagttt ggaaagtgat agatactgat tttctatgat tttatgagga
                                                                        240
cttaaataag ctcctatgga aagtgttttg tgcagtgccg tgcccataaa gaagagctca
                                                                        300
      <210> 652
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 652
acgtgaacga gaaaaggaga aagaacggga gcgggaacga gaacgggata gggaccgtga
                                                                        60
ccggacaaaa gagagagacc gagatcggga tcgagagaga gatcgtgacc gggatagaga
                                                                       120
aaggagetea gategtaata aggategeag tegateaaga gaaaaaagea gagategtga
                                                                       180
aagggaacga gagcgggaaa gagagagaaga gagagaacga gagcgagaac gagaacggga
                                                                       240
gcgagagaga gagcgagaga gggaacggga gcgagaaaga gaaaaagaca aaaaacggga
                                                                       300
      <210> 653
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 653
tgaacgagaa aaggagaaag aacgggagcg ggaacgagaa cgggataggg accgtgaccg
                                                                        60
gacaaaagag agagaccgag atcgggatcg agagagagat cgtgaccggg atagagaaag
                                                                       120
gagctcagat cgtaataagg atcgcagtcg atcaagagaa aaaagcagag atcgtgaaag
                                                                       180
ggaacgagag cgggaaagag agaagagag agaacgagag cgagaacgag aacgggagcg
                                                                       240
agagagagag cgagagaggg aacgggagcg agaaagagaa aaagacaaaa aacgggaccg
                                                                       300
      <210> 654
      <211> 294
     <212> DNA
     <213> Homo sapiens
```

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<220>
       <221> misc_feature
       <222> (1)...(294)
       <223> n = A, T, C or G
       <400> 654
 ccccttcctt ctgtctctgg agacccttga gcttggggaa atatggaggg gtgtgtgtct
                                                                       60
 gcaatcaagg cctctgcagc tcacggctgg cccggtgggc tgggacttcc gtctgaattt
                                                                      120
 taaatactta gggttcattt ttttttctct ggcaacaaag cttgatgttt tcactgcttt
                                                                      180
 agttteetgt ttgetggtgg gaggggatae ggtetgtgae tetggaettg etetggggga
                                                                      240
 acagttgtca ctgcccccgg gganaggggc agctngggct ggagaagcac agcc
                                                                      294
       <210> 655
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 655
 acageetggg egtgeggega getgagatea ageeeggggt gegegagate cacetgtgca
                                                                       60
 aggacgagcg cggcaagacc gggctgaggc tgcggaaggt cgaccagggg ctctttgtgc
                                                                      120
 agttggtcca ggccaacacc cctgcatccc ttgtggggct gcgctttggg gaccagctcc
                                                                      180
 tgcagattga cgggcgtgac tgtgctgggt ggagctcgca caaagcccat caggtggtga
                                                                      240
 agaaggcatc aggcgataag attgtcgtgg tggttcggga caggccgttc cagcggactg
                                                                     300
       <210> 656
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 656
tcaagtttgt ttgaagacac gtgtgccttt gtacccatta taagatggtc ataagaccca
                                                                      60
120
catgeetagg gttecattat tggaacceta agettgtggg agttatttet atectaetge
                                                                     180
tcaaggtcat caccaagatc tgatttttca taaaaaacat ttgtgacctt cggcataaat
                                                                     240
gggttaaggt gccatccctg aaactgcaat gcagatatgt tcagataact tttattttt
                                                                     300
      <210> 657
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 657
aaatgttttt gaatcaagtt tgtttgaaga cacgtgtgcc tttgtaccca ttataagatg
                                                                      60
gtcataagac ccaagaactg ataagctttg gtttttttt gttttgttt gtttttgct
                                                                    120
tcatttaccc attcatgcct agggttccat tattggaacc ctaagcttgt gggagttatt
                                                                    180
tctatcctac tgctcaaggt catcaccaag atctgatttt tcataaaaaa catttgtgac
                                                                    240
cttcggcata aatgggttaa ggtgccatcc ctgaaactgc aagcagatat gttcagaaac
                                                                    300
      <210> 658
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 658
ctatgatcag gactgactag gtagttggca tggcccatag agaacaagga aagatgggct
                                                                     60
ggtggattgg cccacctggg agccacatgg ggcaagggga gccctcaccc tcagccagcc
```

```
agacgagtgg gatttccccc agcacagcat acccccttca caaagggaca actaaagtgc
                                                                        180
ttcattaagc aagtcctgga tcctgtgccc cccaactggg tgagacaccc caatgggtca
                                                                        240
ccagacacct tatacaagaq catttctact ggcatcaggt gggtgcccct caaggacaga
                                                                        300
      <210> 659
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 659
gttttggctq ggcatqatqq ttaqcqcctg cagttccagc tacctgggag ggtaagccca
                                                                         60
gttcaaggct gcaattaact atgatggtgc ccctgcattt cagcctgggt gacaaaatta
                                                                        120
aatcctggcc caaaaaaaa aagtagccag gcatggtggc gggagcctgt tgtcccagct
                                                                        180
gttccqtaqq ctgaqqcacq acattcactt qaacctqqqa qgtggaggtt gctgtgagct
                                                                        240
gacaccacgo cactgoacto cagootgggt gacagtgaga ototgtotoa ataaataaaa
                                                                        300
      <210> 660
      <211> 280
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(280)
      <223> n = A, T, C \text{ or } G
      <400> 660
attcgaacat atgcagttat tccactaaat gatgaatgtg ggattattga atgggtgaac
                                                                         60
aacactgctg gtttgagacc tattctgacc aaactatata aagaaaaggg agtggatatg
                                                                        120
acannaaaag aactttncca gtgctnctac ctcngnctnc ngntttatct gaanagntgg
                                                                        180
nagthtenen ngatangnee tqntttgeat entnntanng nnntnnannn gecetttnen
                                                                        240
tnntgnttgn eggnnnngen ttgnennnag teancegetg
                                                                        280
      <210> 661
      <211> 294
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(294)
      <223> n = A, T, C \text{ or } G
      <400> 661
aataggannn ctaanaggct angtgagnaa tatcaancnc cgcnctgttt ttnggtggtt
                                                                         60
aangnngtat anngggcntn natgggnagg aatncanatg gtagttggga nagggggagga
                                                                        120
tacaggtgga tgggactgga ggttgtataa ggtgttcttg gaaggaaggg gcaggagttg
                                                                        180
gaattagttg gtccctactg tcccccatga ggttgtgaac ccctcccca acttttcatg
                                                                        240
tttcttaaag gcattttggt tttttaaaat ctgtacagca agagcaactt tttc
                                                                        294
      <210> 662
      <211> 279
      <212> DNA
      <213> Homo sapiens
      <220>
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<221> misc feature
      <222> (1)...(279)
      <223> n = A,T,C or G
      <400> 662
gaaaanggna ngactgnttt atgggggcnc caannnncng nnncanttnc annnnggccc
                                                                         60
cnanaatggc caatgctcgt ttagggaacc gccattctgc ctggggacgt cggagcaagc
                                                                        120
ttgatttagg tgacactata gaatacaagc tacttgttct ttttgcagga tcccatcgat
                                                                        180
tegeaggaat egatetegtg aageeegeaa ggacegaaca eeeceaecee gatttagace
                                                                        240
tgcaggtgct gcccacgtc ccccaccaaa gcccatgta
                                                                        279
      <210> 663
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 663
gctaagtatt ctaggatcta cagttatggt cattcatgct ccaaaggaag aggagattga
                                                                         60
gactttaaat gaaatgtete acaagetagg tgatecaggt tttgtggtet ttgcaaceet
                                                                        120
tgtggtcatt gtggccttga tattaatctt cgtggtgggt cctcgccatg gacagacaaa
                                                                        180
cattettgtg tacataacaa tetgetetgt aateggegeg ttttcagtet eetgtgtgaa
                                                                        240
gggcctgggc attgctatca aggagctgtt tgcagggaag cctgtgctgc ggcatcccct
                                                                        300
      <210> 664
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 664
tegtttaggg aacegecatt etgeetgggg aegteggage aagettgatt taggtgacae
                                                                        60
tatagaatac aagctacttg ttctttttgc aggatcccat cgattcgaat tcggcacgag
                                                                        120
catggtaatc ctgctcagta cgagaggaac cgcaggttca gacatttggt gtatgtgctt
                                                                       180
ggctgaggag ccaatggggc gaagctacca tctgtgggag gaaggaggca ggctgtggtg
                                                                       240
ggactgggta gggtatagta tcactcctga gttccactgc tctagaatct aaccagaaat
                                                                       300
      <210> 665
      <211> 298
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(298)
      <223> n = A, T, C \text{ or } G
      <400> 665
cccgaggage ggagcagagg cacccaggca gcctgcgcgg agaaattgga tcggcgggga
                                                                        60
cggcctgcag ctcccgcgcg cggggaaagg gaagaagtcc tcccctacaa agcaaattca
                                                                       120
caaacttgga agaagcaatt tacacaggat gtgcagatct caatggaagg acacgggaaa
                                                                       180
cgtgaaaaag caaggaagtg ggacgcctcc aaaggnnnnn nntaattctc cagcancaga
                                                                       240
tccccatcca aaaganattc aagaantgtc atatagagaa ttgtggaaac tgattta
                                                                       298
      <210> 666
      <211> 272
     <212> DNA
```

<213> Homo sapiens

```
<220>
      <221> misc_feature
      <222> (1)...(272)
      <223> n = A, T, C \text{ or } G
      <400> 666
gacagcccca atccgggagc aggaggcct cctgccttgg catatagacc cctgggcgcc
                                                                         60
tccctgggat gcccaccagg cccagggatc cacctaggtg ggtttggcta tcctggtgat
                                                                        120
ggnnnnnnn nnnnntnaac ctntctttnt ntacnncnnt acnnctcatn tattntcctc
                                                                        180
tanngntaan tntgnnnnnn tnnncttntn ccaantagnn nntttngnnn ncnntcnnnt
                                                                        240
naatntanat tnntntnnnt ntttnnntna tt
                                                                        272
      <210> 667
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 667
ggaacgcagc tgctcaccag caacggaaca aagctggacg gagaatgact ttgaagagct
                                                                         60
gagagaaggc ttcagacgat caaattactc tgagctacgg gaggacattc aaaccaaagg
                                                                       120
caaagaagtt gaaaactttg aaaaaaataa atgtacatta attaacgtgg aatctggtga
                                                                       180
acagtaacaa actttggtga aatttcagga accatagcca ttgaagtgga tgagggaacc
                                                                       240
tatatacatg cactcaacaa tggtcttttt accctgggag ctccacacaa agaagaatcg
                                                                       300
      <210> 668
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 668
attaaaccgg tttctgtggg cacctctgtc cttgctgctg gtggggaagg gaagccagat
                                                                        60
ccagcacccc ctggggggcc atcgggagtg tggctggggg tgaagggggc tctgtggcaa
                                                                       120
tatggggttg ggtagtgtgg gtggcaggcc atcccctcta atcttggaac ctctgaatat
                                                                       180
gggacctccc acagcaaagg gtgacttttg tcattaagaa agactggggt gggtgtggtg
                                                                       240
gctcacgcct gtaaccccag cactttggga ggccaaggtg ggcagatcac gaggtcaaga
                                                                       300
      <210> 669
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 669
agaggaccct gcagttaggg ggtgttactt tgtcgcccag gatggcctgg acccccaggt
                                                                        60
teagggatte teeegeeget getteetgag tagetgggae eteaggette egeetegtge
                                                                       120
ecgcatecet getgtgttta ggeageaggt ggtgacetea etectecetg geetgagete
                                                                       180
teegteeege ateecaggeg gaggeeetag ggaacaettt gaagetgage aeggggtgga
                                                                       240
cecteetee tgagtgaatg gagaatagaa agggagagga tttetgttet gttetgtggg
                                                                       300
      <210> 670
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 670
accogagget eggtgtacta ggtgcgaatg eegeettetg tggtgaccae tgtettetea
                                                                        60
```

120

teetttgeae etataggagg tgagtgeett tggggaagae ggegagggeg aegaeetgga

```
cctatggaca gtgcgctgct ctggacagca ctgggagcgt gaggctgctg tgcgcttcca
                                                                         180
 gcatgtgggc acctctgtgt tcctgtcagt cacgggtgag cagtatggaa gccccatccg
                                                                         240
 tgggcagcat gaggtccacg gcatgcccag tgccaacacg cacaatacgt ggaaggccat
                                                                         300
       <210> 671
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc feature
       <222> (1)...(300)
       <223> n = A,T,C or G
       <400> 671
ataatttggn gcatttccnn acantgtctt nncaaganta aaatgtgngc gccaaaattt
                                                                         60
ngnattntan tnggagantt nttatccaaa ntaangctgc cntaggaagt ctaaggaatt
                                                                        120
agtagngttc ccatcnettg tttggagtgn gctattetna aagaataagc aatgetegtt
                                                                        180
tagggaaccg ccattctgcc tggggacgtc ggagaaagct tgatttaggt gacactatag
                                                                        240
aatacaagct acttgttctt tttgcaggat cccatcgatt cgaattcggc acgagcagga
                                                                        300
      <210> 672
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 672
ggctctccct gagtgtcgag gaggacatga gtgaaatgac cagcgaactc atttttata
                                                                         60
ggactcggtg aagccggatt ctgcatttcc ctacttgtag actcattttg tggaatagag
                                                                        120
ttgatcgctg tctcctccgc aaagcatttt aactcgaata agcaaatgcc gcctctgttt
                                                                        180
gaacgttttg gtatttacaa gagagaaatc attttaccta agagaactaa ttgaattggc
                                                                        240
agcateettg aaataeetee ggacaaggat etgggggtgg gggtggaaaa gcaaetgega
                                                                       300
      <210> 673
      <211> 285
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(285)
      <223> n = A, T, C \text{ or } G
      <400> 673
gtgagacagg ttagttttac cctactgatg atgtgttgtt gccatggtaa tcctgctcag
                                                                        60
tacgagagga accgcaggtt cagacatttg gtgtatgtgc tacgtcgccc tggacttcga
                                                                       120
gcaagagatg gccacggctg cttccagctc ctccctggag aagagctacg agctgcctga
                                                                       180
eggeeaggte ateaceattg geaatgagee ggttaegetg eeetgaggen nnnnnnnnge
                                                                       240
cttnnttact ggcatgntgt tctgttnntn cngnngagta cattc
                                                                       285
      <210> 674
      <211> 292
      <212> DNA
      <213> Homo sapiens
     <400> 674
```

```
gtcaatggtg tacaagcaat gctcgtttag ggaaccgcca ttctgcctgg ggacgtcgga
                                                                         60
gcaagettga tttaggtgac actatagaat acaagetact tgttettttt gcaggateee
                                                                        120
ategattega atteggeacg agggggatte ataatteeag acaggtagag aacggtttta
                                                                        180
tttatgtaga gacagagtet egetetgteg ecaggetgag gegggagaat caettgaace
                                                                        240
tgggaggtgg aggttgcgct gagctgagat cattacactg cactccagcc tg
                                                                        292
      <210> 675
      <211> 271
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(271)
      <223> n = A, T, C or G
      <400> 675
canaccnatt ctcnnttggc aacnangatc ganggggnac ctagnnnann nnnnnnnnaa
                                                                         60
tgacgcaaat gggcgttcca ttgacgtaaa tgggcggtag gcgtgcctaa tgggaggtct
                                                                        120
atataagcaa tgctcgttta gggaaccgcc attctgcctg gggacgtcgg agcaagcttg
                                                                        180
atttaggtga cactatagaa tacaaqctta ctttgttctt tttgcaggat cccatcgatt
                                                                        240
cgaattccgc acatgaatct cccctcctca c
                                                                        271
      <210> 676
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 676
aaatgatgac agagagaacc ctgttgaaag agogttacca ggaggtcctg gacaaacaga
                                                                        60
ggcaagtgga gaatcagctc caagtgcaat taaagcagct tcagcaaagg agagaagagg
                                                                        120
aaatgaagaa tcaccaggag atattaaagg ctattcagga tgtgacaata aagcgggaag
                                                                        180
aaacaaagaa gaagatagag aaagagaaga aggagttttt gcagaaggag caggatctga
                                                                       240
aagctgaaat tgagaagctt tgtgagaagg gcagaaggta actgatgtta agaataaaaa
                                                                        300
      <210> 677
      <211> 289
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(289)
      <223> n = A, T, C or G
      <400> 677
gegagecagg attecegate cagagacaat ggeecegatg ggatggagec egaaggegte
                                                                        60
ategagagta actggaatga gattgttgac agetttgatg acatgaacet eteggagtee
                                                                       120
cttnnnnnn ncttntangc ctatggtttt gangaactnt tnngttttat ttttntgttn
                                                                       180
antititingth gnotgithing itnintgtingg atingaganga anantiticit thighgocat
                                                                       240
gtgctgatgg angnntnntn ttntcnnatt tntnnntttt natgttttt
                                                                       289
      <210> 678
      <211> 300
      <212> DNA
      <213> Homo sapiens
```

```
<400> 678
 ggaccatgac atctagggcc tctgaacttt ctccggggcg cagcgtgacg gctggcatca
                                                                       60
 tcattgttgg agatgagatc cttaagggac acactcagga caccaacacc ttctttctgt
                                                                      120
 gccggacact gcgctcccta ggggtccagg tttgccgagt ctcagttgta cctgatgagg
                                                                      180
 tagccaccat tgcagctgag gtcacttctt tctccaaccg cttcacccat gtcctcacag
                                                                      240
 cagggggcat cggccccact catgatgatg tgacctttga ggcagtggca caggcctttg
                                                                      300
       <210> 679
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 679
ttcaccaatg acatgatett atagegatte tataaaaaca gaataattaa caaatteage
                                                                      60
aaagttgtca aatacaaaat caacacacag aaatcagttg catttctata tagtactagc
                                                                      120
agtgaacact tcatgaagga aattagcagt ttcatttaaa tagcatcaca tagaataaaa
                                                                      180
tacataggaa ttaaccaagg aggtgaaaga cttgtacaca gaaaactaca aaatattgtt
                                                                     240
gaaagaaatt aaagaagaca taattaaatg gaaagacatc ctgtgttcaa ttatatccat
                                                                     300
       <210> 680
       <211> 300
       <212> DNA
      <213> Homo sapiens
      <400> 680
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                                                                      60
tggccatggg cccggtcacg aacaaaacgg gcctggacgc ctcgcccctg gccgcagata
                                                                     120
cetectacta ceagggggtg tacteeegge ceattatgaa eteetettaa gaagaegaeg
                                                                     180
gcttcaggcc cggctaactc tggcaccccg gatcgaggac aagtgagaga gcaagtgggg
                                                                     240
gtcgagactt tggggagacg gtgttgcaga gacgcaaggg agaagaaatc cataacaccc
                                                                     300
      <210> 681
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 681
gggagactgg ggtctatttc acccctgcag tctcgaccat aagagatggc tacacccagg
                                                                      60
ggggccagtt cagagaccca ctcccaggtg tgcattctct ttctcaagga tgttccttgc
                                                                     120
tgagaaaaag aattcagtga tatttctccc atttgcttgt gaaagaagag aaatgtggct
                                                                     180
ttgttccacc tggctcaccg gcggtcagaa tttaaggtta tctctcttgt ttcctaaaca
                                                                     240
ttgctgttat cctgttcttt tttcaaggtg cccagatttc atattgctca aacacacatg
                                                                     300
      <210> 682
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 682
gatcagecca ceteggeete acaaagtget gggattacag gegtgageca cettgeccag
                                                                     60
cccacatcat acagtttgaa atgaaacttt gccacaacca gcctttgctg tagcacacac
                                                                    120
180
tctgaagtct ggtattctgg tattctgggt tcaaaagtat gacttgagag tgttgctctg
                                                                    240
gtattctgag agttgctctg tattctgggt tctgaagatt atttgaaaaa taactcctac
                                                                    300
```

<210> 683

```
<211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 683
ggtacaccaa agaagaaagc tgttgtccag gctaagttga caaccactgg cccggtgact
                                                                        60
tctccagtga aaggcgcctc atttgtcacc agtaccaatc cccggaaatt ttctggcttt
                                                                        120
tcagccaagc ccagagtgga tttgggcata gtaatcagca aaagctacgg aataattcta
                                                                       180
agaattagat gtttccatat cattaaaacc aaggatccat gaggggcaga agggaggatt
                                                                       240
caaagatttt aaaaaaatca aattttagac cttggttaaa tattaactgg aatgggatct
                                                                       300
      <210> 684
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 684
agactecett teceggtetg etcagtaacg ggtgeettee cagacactgg egttaceget
                                                                        60
tgaccaaggg gccctcaagc ggcccttatg cgggcatgac agaaggctcc cctcttgcct
                                                                       120
totattcact totcacaatg tocottcago acctgaccot atacctgcog gttattcota
                                                                       180
ggttatatta ttaatgcaac agagtaatat taaaagctaa tgattaataa tgtttataat
                                                                       240
aatgatggat aattgttcat gatcatcgct gtatctaatt tgtattatga ctattcttat
                                                                       300
      <210> 685
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 685
ggagagaaac cttatggatg cattgactgt ggcaaggcct tcagccagaa gtcttgcctt
                                                                        60
gtagcacate agagatatea tacaggaaag acteeetttg tatgteetga atgtgggeaa
                                                                       120
ccctgttcac agaagtcagg actcattaga catcagaaaa ttcactcagg agagaaaccc
                                                                       180
tataaatgca gtgactgtgg gaaagccttc cttacaaaga caatgctcat tgtacatcac
                                                                       240
agaactcaca cgggagagag accctatggc tgtgatgagt gtgagaaagc ttacttctat
                                                                       300
      <210> 686
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 686
gggccgctca gtttttacgt aaaatggcag atccacagtc catccaggaa tcgcagaatc
                                                                        60
tgtccatgtt cctqqccaat cataacaaqa tcacacaqtc tctqcaqcaq caqctcqaaq
                                                                       120
tgatttctgg ctacgaagag cctctagaac tatagtgagt cgtattacgt agatccagac
                                                                       180
atgataagat acattgatga gtttggacaa accacaacta gaatgcagtg aaaaaaatgc
                                                                       240
tttatttgtg aaatttgtga tgctattgct ttatttgtaa ccattataag ctgcaataaa
                                                                       300
      <210> 687
      <211> 300
      <212> DNA
     <213> Homo sapiens
      <400> 687
gtotgootto aagaagooag acaggaaggo cotgootgoo ttggototga cotggoggoo
                                                                       60
agccagccag ccacaggtgg gcttcttcct tttgtggtga caacgccaag aaaactgcag
                                                                       120
aggccccagg gtcaggtgta agtgggtagg tgaccgtaaa acaccaggtg ctcccaggaa
                                                                       180
```

```
cccgggcaaa ggccatcccc acctacagcc agcatgccca ctggcgtgat gggtgcagag
                                                                    240
ggatgaggca gccaggtgtt ctgctgtggt ttgggagcct ataaagtgag actaggctgg
                                                                    300
      <210> 688
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (300)
      <223> n = A, T, C or G
      <400> 688
60
gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga
                                                                    120
gagagaga gagagaga gagnnnnnn nnnnnnnnn cncacnctct tntntcncgn
                                                                    180
nnnnnntctc tctntgtntc nctctnngtg tnnganatnt ntctctctta tatntntntn
                                                                    240
tnttttntct ctcnanannc tctctctct tntntgtgtc tctntcacnn ccctctctct
                                                                    300
      <210> 689
      <211> 286
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(286)
      <223> n = A, T, C or G
      <400> 689
gtggtctctc cccctgtacc tagaaagcta tttgagctgg atccgtccct ctgatcgtga
                                                                     60
egeetteett gaagaattte ggacatetet geeaaagtet tgtgaeetgt anetgeeneg
                                                                    120
ttttgaagag cttganctgg ttnccctntg gnnnntcgnt ntgtntntct cntnntgtnc
                                                                    180
nntcnanant nntnanttnn natngntgna tnnntaangc ntnatnnttn ctnnatnntn
                                                                    240
tnngagnetn ttnnnntttt nnnntnatne ttngtnatgn teatta
                                                                    286
     <210> 690
     <211> 272
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> (1)...(272)
     <223> n = A, T, C \text{ or } G
     <400> 690
aaannnaana agnnnnaagn aancnnttaa gagangaang atngangnna gnntntnaat
                                                                    60
ngnaaggntn natnncnaca nntgntantc tcggatntaa tgtannccna tgaagnaaga
                                                                    120
aaaccttgga ccttgatgat attcacacac attcaggaac ctgttttgat gtattatagg
                                                                   180
caggaagtgt ttttgctacc gtgaaacctt tacctagatc agccatcagc ctgtcaactc
                                                                   240
agttaacaag ttaaggaccg aagtgtttca ag
                                                                   272
     <210> 691
     <211> 300
```

```
<212> DNA
      <213> Homo sapiens
      <400> 691
ggcacgaggc actaagcagg ctagtgctct cagettcccg gcctcccctt ccaggccgct
                                                                      60
geogectgae cetgtgteca agagacteca ggetgagetg getgaeegae ceaateecee
                                                                     120
taccegeeet etgecegetg acceggtggt gagaageeeg aagteteagg ggecageeaa
                                                                     180
geoeceacce ccaaggaage cactgootge cgacceccag ggccggtgcc catcgggtga
                                                                     240
cctgcccggc ccaggggctg gaatcccgcc cctagtggta ccctccagac cagcgccacc
                                                                     300
      <210> 692
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 692
aaaatgcctt cattttcctt tttactttat catgagacat aagatttatt ggcttcatat
                                                                      60
caaccettaa gtattgttaa etttatgtaa tagcatttgg gttggggatt ggtgtgtttt
                                                                     120
cggttgtaca tagcatagtt gaattatgtt aggcataatt atgaccttat tattgtcttt
                                                                     180
atttqaaaat tatatatgat ctcaqqaaat qtgtatgagt tcaagttgac aaggagtgga
                                                                     240
300
      <210> 693
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      \langle 223 \rangle n = A,T,C or G
      <400> 693
ggctgtcgct gacccaggag aagetgcctg tctacatcag cctgggctgc agegcgctgc
                                                                      60
cgccgcgggg ccggcagcca tggccaagga catcctgggt gaagcagggc tacactttga
                                                                     120
tgaactgaac aagctgaggg tgnnnnnnn nnnnnntatt cagcttatcc taaacctgaa
                                                                     180
agaagagtga gtagacttta aggatcaaga taatctgggg cttcccagtt gtgtcggcca
                                                                     240
aggacctgag acctgaaggg ttgactttac ccatttgact gggagtgttg agcatctgtc
                                                                     300
      <210> 694
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 694
ccceggtgtc cccgcgaggg gcccgggggg gggtccgccg gccctgcggg ccgccggtga
                                                                      60
aataccacta ctctgatcgt tttttcaatt gaccgtggag gcccccatgc ccaagctagc
                                                                     120
caegeagtee aacgagatea ceateceagt caeettegag tegegggeee agettggggg
                                                                     180
cccagaagct gcaaaatccq atqaqactqc cgccaaqtaa accccttaqc ccggatqccc
                                                                     240
accectgetg cegecactgg etgtgeetee ceegecacet gtgtgttett ttgatacatt
                                                                     300
     <210> 695
     <211> 281
     <212> DNA
     <213> Homo sapiens
```

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<220>
       <221> misc_feature
       <222> (1)...(281)
       <223> n = A,T,C or G
      <400> 695
caggegtact gacaggtgga ccaaeggact gatttagaag agaacaagca tgegeteeet
                                                                          60
acattccagc cacatatcac aaacgactac ggtctggaca actttgacac acagttnacc
                                                                         120
agngageceg tgeanntgae eccanaegat nangatgeea tatagaggat ngaecagten
                                                                         180
nagttcgaag gntntganta tatccatcca ttattgctga ncncnnanga nncnntnntc
                                                                         240
atntachtnt agtchntntt ttngctntct cccnnccact c
                                                                        281
      <210> 696
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 696
tttcggccaa ctagaggagt ctgaaggacc agacaattgc tcagaaacag aaggctgttt
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agaattttct aaattcatta agggcaattc tggtactttt ctggaaattg gctttaagag
                                                                        120
ctcatcctgc atttttaaaa tctctccaac tggatcaaat tttttatata ctcgtttgat
                                                                        180
aggttttttt aaaacacatg actcttcagg actacaagca gtattagtct ggtttcctac
                                                                        240
agaageetgt cetgaggaag aatttggaet agetggtetg gaaettaagt tagaacceae
                                                                        300
      <210> 697
      <211> 262
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(262)
      \langle 223 \rangle n = A,T,C or G
      <400> 697
gtcagggctg gactgtgagc ctgtgcttgg gtcctggagg aggtgaggga ggtatacatt
                                                                         60
gatgagtttg gacaaaccac aactagaatg cagtgaaaaa aatgctttat ttgtgaaatt
                                                                        120
tgtgatgcta ttgctttatt tgtaaccatt ataagctgca ataaacaagt taacaacaac
                                                                        180
aattgcattc attttatgtt tcaggttcag ggggaggtgt gnnnnnnnn nnnnnnnn
                                                                        240
nannntnnnn tanngnntna tg
                                                                        262
      <210> 698
      <211> 295
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(295)
      <223> n = A, T, C \text{ or } G
      <400> 698
gggcgaaaaa gatgaccgaa attcaaactc ctgaaaatac tcctcgttta tttgatttag
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taaaagtaaa agatgagaaa attcgccaag ctttttattt tgctttacga gataccttag
                                                                       120
tagctgacaa cttggatcaa gccacaagag tagcatatca aaaagataga agatggagag
                                                                       180
tggtaacttt acagggacaa atcatagaac agtcaggtac aatgactggt ggtggaagca
```

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aagtaatgan nggaagaatg ggtncctcac ttgntattga aanctctgaa gaaga
                                                                       295
      <210> 699
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 699
aqaaagtget ageaeagttt gtqttgtgga tttgctactt ccatagttta cttgacatgg
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ttcagactga ccaatgcatt tttttcagtg acagtctgta gcagttgaag ctgtgaatgt
                                                                       120
gctaggggca agcatttgtc tttgtatgtg gtgaattttt tcagtgtaac aacattatct
                                                                       180
                                                                       240
gaccaatagt acacacacag acacaaagtt taactggtac ttgaaacata cagtatatgt
taacgaaata accaagactc gaaatgagat tattttggta cacctttctt tttagtgtct
                                                                       300
      <210> 700
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 700
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attgacgagg agtaaaagtc gtctattgag catcttattc actacaaata gaagaaagaa
                                                                       120
ataccagttt cctgacaagc cccaccccat gcttggccag ttcctgagta cacttaatat
                                                                       180
attttagagg aaaagatgct agaaccacag gagaatggcg tgattgacct accagattat
                                                                       240
gagcatgtag aagatgaaac ttttcctcct ttcccacctc cagcctctcc agagagacaa
                                                                       300
      <210> 701
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 701
gtggtcttca gtctgtcgtg caccgatgag aactctcctt attgctgtga agggcagaca
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atgcatggct gatctactct gttaccaatg gctttactag tgacacgtcc cccggtctag
                                                                       120
gatcgaaatg ttaacaccgg gagctctcca ggccacccac ccggagagac gtcgcgctgt
                                                                       180
ggcctgaagt ggcgcaagct tgctttgtaa atatctgtgg tcccgatgta gtgcccagaa
                                                                       240
cgtttgtgcg aggcagetet gegeeegggt tecageeega geetegeegg gtegeegtet
                                                                       300
      <210> 702
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 702
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ggggacgtcg gagcaagctt gatttaggtg acactataga atacaagcta cttgttcttt
                                                                       120
ttgcaggate ccategatte gaatteggea egaggaagga ggacetagge acacacatat
                                                                       180
ggtggccaca cccaggaggg tagtggggag ttagatttca gagtccaggc cctaggttgg
                                                                       240
gacccactcc aaataatctc ctcggtgtgg gtggtggttc tatagaggga taaagaataa
                                                                       300
      <210> 703
      <211> 300
      <212> DNA
      <213> Homo sapiens
    <400> 703
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ccaaggegea geoegattet geoecetaeg attggttegg ggaettetee teetteegtg
                                                                         60
ccctcctaga gccggagctg cggcccgagg accgtatcct tgtgctaggt tgcgggaaca
                                                                        120
gtgccctgag ctacgagctg ttcctcggag gcttccctaa tgtgaccagt gtggactact
                                                                        180
catcagtcgt ggtggctgcc atgcaggctc gctatgccca tgtgccgcag ctgcgctggg
                                                                        240
agaccattga tgtgcggaag ctggacttcc ccagtgcttc ttttgatgtg gtgctcgaga
                                                                       .300
      <210> 704
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 704
gagaagctga ccttggacct gacggtgctc ctgggtgtgc tgcaggggca acagcagagc
                                                                        60
ctacagcagg gggcacactc caccggctcc agccgcctgc acgacctcta ctggcaggcc
                                                                       120
atgaaaaccc tgggagtcca gcgccccaag ttggagaaga aggatgccaa qqaqatcccc
                                                                       180
agtgccaccc agagccccat cagtaagaag cggaagaaaa agggattctt gccagagacg
                                                                       240
aagaagcgca agaaacgcaa gtcagaggat ggcacgccag cggaggatgg cacacctgca
                                                                       300
      <210> 705
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 705
agtccacatt aaaaagaaaa caaaacaaac cctaactaac ttccaaatgg gtctcctggt
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gcgggggcgt gagtggccgt gccctgggtg tgctgcctgt ctgagcaagc ttccctagct
                                                                       120
gaggaacccc gggccccctg ctgcgggctc tgccttggtg tcatgcctgc tgcacccccg
                                                                       180
tttacactga tgtgccannn nnnnnnntgg nggtttggag cnnacatgct actggtcnan
                                                                       240
nnacacangt nccggggcat catgagaaag gntngntctt ggnaccttgt cctccccagt
                                                                       300
      <210> 706
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 706
ccgcagaggg cctggaagag gtgctcacca cgccagagac tgtgctcaca ggccacacgg
                                                                        60
agaagatetg etecetgege ttecaceeae tggeageeaa tgtgetggee tegteeteet
                                                                       120
atgaceteae tgttegeate tgggaeette aggetggage tgateggetg aagetgeaqq
                                                                       180
gccaccaaga ccagatette ageetggeet ggagteetga tgggeageag etggeeactg
                                                                       240
tctgcaagga tgggcgtgtg cgggtctaca ggccccggag tggccctgag cccctgcagg
                                                                       300
      <210> 707
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 707
tggaggtete etttegeece ageceaggtg gecaageeca teetggeete agaacatget
                                                                        60
gagcacattt tgtagggtgg caccttttta tccaagttac tagctacaca tcagtgttta
                                                                       120
aagagaaaaa agtgaccttt cattttttt tcttgaaact tgaggaaaca agatacatac
                                                                       180
```

```
tactgatttt ttttttctta aaactaaatg catgactgca gagcggtaga ggtgtatatt
                                                                      240
tttcatactq tggggcaaaq tatttqtqct qctttttqga gatggactgg aacgtctgqt
                                                                      300
      <210> 708
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 708
aaaaacagtg cattagcaat ttcatagcaa gtgcatgcac taggaaaaga aaactctgtc
                                                                       60
tacaaqttta ttaqcaqaaq tqqtqqtctq ctaqacaaat aattttgcaa aatttttcta
                                                                      120
catctaagtt acctcatcag taagtgccat gtctctacca tgccatcaga ggctaatttc
                                                                      180
ctgtaaaagt tgtggaaatt gttagaacaa tagaaaaata gagcagtgta tgtgtgccaa
                                                                      240
aactcatcat tactcaaagg agaactgtgt taggcacatt taagaaagtt tacatctgac
                                                                      300
      <210> 709
      <211> 285
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(285)
      <223> n = A, T, C \text{ or } G
      <400> 709
gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga
                                                                       60
gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga
                                                                      120
gagagagaga gagagagaga gagagagaga gannnnnnn nggtcttctc
                                                                      180
ntqentqatq cetettntca etqeetqqan ceetqntnna ngeeetegna tetecentge
                                                                      240
tnccgngcct ttnnttngan cctggtggtc tcctctccca ttgct
                                                                      285
      <210> 710
      <211> 275
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(275)
      <223> n = A,T,C or G
      <400> 710
gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga
                                                                       60
gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga
                                                                      120
gagagagaga gagagagaga qaqaqagaga gagannnnnn nnngngngcn
                                                                      180
ctcccgcgcg cnngnctnnc ncncntntnn tctctctctc tcgngcnccc ccnccncccc
                                                                      240
                                                                      275
cnncacacnn nnncagagng nnnctctctc tntnt
      <210> 711
      <211> 266
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
```

```
<222> (1)...(266)
      <223> n = A,T,C or G
      <400> 711
ataacacaga ctttcaagga ccaaggattg gaggttttaa agcaggaaac agcagttgtt
                                                                         60
gaaaacgtcc ccattttggg actttatcag attccagctg agggtggagg ccggattgta
                                                                        120
ctgtatgggg actccaattg cttggatgac agtcatcgac tgaaggactg cttttggctt
                                                                        180
etggatgeee tnnnnnnnn nnnntngtgt ggngtgnnnn nntanetnnn nnnntttnng
                                                                        240
nnectnnnnt gnnnttntnn nnnnet
                                                                        266
      <210> 712
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 712
gtgtggaacc tgcagggcct ctagatgtgc tgggccccag tctccaaggg cqaqaatqqa
                                                                         60
ecctgatgga cttggacatg gagetgteet tgatgeagee ettggtteea gageggggtg
                                                                       120
agcctgagct ggcggtcaag gggttaaatt ctccaagccc aggtaatggt tqtqatqact
                                                                       180
cctacctggg aggacgccgt gattgggctg agctaccttg attgagtgag ggggcaatct
                                                                       240
gcaatttgca gggaaatcct gagttcaggc tgcactgcag agcgttcctt gagccaccca
                                                                       300
      <210> 713
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 713
tgtggagaag ccttctttt ctatgggaaa tcacttctgg agttggcaag aatggagaat
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ggtgtgttgg gaaacgcctt ggaaggtgtg catgtggaac atcattctca ccaccagtct
                                                                       120
cttctctgtg cctttcttcc tgacgtggag tgtggtgaac tcagtgcatt gggccaatgg
                                                                       180
ttcgacacag gctctgccag ccacaaccat cctgctgctt ctgacggttt ggctgctggt
                                                                       240
gggctttccc ctcactgtca ttggaggcat ctttgggaag aacaacgcca gcccctttga
                                                                       300
      <210> 714
      <211> 291
      <212> DNA
      <213> Homo sapiens
      <400> 714
gttttgctcg tttagggaac cgccattctg cctggggacg tcggagcaag cttgatttag
                                                                        60
gtgacactat agaatacaag ctacttgttc tttttgcagg atcccatcga ttcgaattcg
                                                                       120
gcacgaggtt atgtctggct gtagctgttg gtcacgtgaa gatgacagac gatgagcttq
                                                                       180
tgtataacat tcacctggct gtcaacttct tggtgtcatt gctcaagaaa aactgqcaqa
                                                                       240
atgtccgggc cttatatatc aagagcacca tgggcaagcc ccagcgccta t
                                                                       291
      <210> 715
      <211> 294
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(294)
      <223> n = A, T, C \text{ or } G
```

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<400> 715
tectecangg cegtggttgt gaaaaaggte gaggeeeetg atgggaaget ggtgtetgag
                                                                         60
tectetgacg tectgeecea gtgeacaagt teggeageee eteccageet teceeteetg
                                                                        120
cgctgcccca gagcctggga aggaggccgc tttgcagggt agcactggga acagggaacc
                                                                        180
cocctgaggc tecgecetag cocttagece geetggggag tttacttect ggggacecec
                                                                        240
cttgcccatg cctccagcta caacaccatt ccattgcttt tttttttggt ccag
                                                                        294
      <210> 716
      <211> 289
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(289)
      <223> n = A, T, C or G
      <400> 716
ggtagttaag ccccccaaa acaagacgga aagtgaaaat acttcagata aacccaaaag
                                                                        60
aaagaaaaag ggaggcaaaa atggaaaaaa tagaagaaac agaaagaaga aaaatccatg
                                                                       120
taatgcagaa tttcaaaatt tctgcattca cggagaatgc taatatatag agcacctgga
                                                                       180
agcagtaaca tgcaaatgtc agcaagaata tncgntnaan gganctgtnn atgctanttn
                                                                       240
ananataatc nnagctggan agggagcttt ttaagcttaa nnnaatgtt
                                                                       289
      <210> 717
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 717
cgacggcaag gtggtgctgt cccggcagta cggctcggag ggccgcttca cgttcacctc
                                                                        60
ccacacgccc ggtgaccatc aaatctgtct gcactccaat tctaccagga tggctctctt
                                                                       120
egetggtgge aaactgeggg tgeatetega eateeaggtt ggggageatg eeaacaacta
                                                                       180
ccctgagatt gctgcaaaag ataagctgac ggagctacag ctccgcgccc gccagttgct
                                                                       240
tgatcaggtg gaacagattc agaaggagca ggattaccaa aggtatcgtg aagagcgctt
                                                                       300
      <210> 718
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 718
ggggggattc cactectgtt ttgtgagtag gcgacccatg ggctgcccag ccttaaagcc
                                                                        60
agaacaaggg tgtcccctga cctcgttcca ctgccctcct cccgttccca tctttccccc
                                                                       120
ctaccttccc cttaggcacg tctgagaatg gtggatgtgg tggagaaaga agatgtgaat
                                                                       180
gaagccatca ggctaatgga gatgtcaaag gactctcttc taggagacaa ggggcagaca
                                                                       240
gctaggactc agagaccagc agatgtgata tttgccaccg tccgtgaact ggtctcaggg
                                                                       300
      <210> 719
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 719
gtcgggtctc caacctcatt aagcaccaca gggttcacac tggagagaag ccctataagt
                                                                        60
gcagtgactg tgggaaagca tttagtcaga gctccagcct tattcagcat cggagaattc
```

```
acactggaga aaagcctcac gtgtgtaatg tatgtggaaa agcctttagt tatagctcag
                                                                       180
tgctccgaaa gcaccagatc atccacacgg gagagaagcc gtacagatgc agtgtctgtg
                                                                       240
ggaaggcctt cagccacagc tcagccctca ttcagcacca gggcgtgcac acaggcgaca
                                                                       300
      <210> 720
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 720
gtggctatcc atcaacataa gtaaaaaaaa aaaacacttc aactccctcc cccatttann
                                                                        60
nnnnnntta acatattta aaaatcanat gagttntata aataatttaa anaagngaga
                                                                       120
gtatttattt ttggcatgtt tggcccacca cacanactnt gngtgtgtat gtgtgngttt
                                                                       180
atatgtgtat gtgngtgaca naaaaatntg taaanaanag gcncatntat ggntactgnt
                                                                       240
caaatnotta aagataantt nattttoaca caqtocacaa qqqqtatato ttqtaqtttt
                                                                       300
      <210> 721
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 721
gtttgtgcat cacttggtca ccattgggct tatctccttc tcctacatca acaatatggt
                                                                        60
tcgagtggga actctgatca tgtgtctaca tgatgtctca gatttcttgc tggaggcagc
                                                                       120
caaactggcc aattatgcca agtatcagcg gctctgtgac accctttttg tgatcttcag
                                                                       180
tgctgttttt atggttacac qactaggaat ctatccattc tggattctga acacgaccct
                                                                       240
ctttgagagt tgggagataa tcgggcctta tgcttcatgg tggctcctca atggcctgct
                                                                       300
      <210> 722
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 722
acaacattca gcatgcagac ccgccagtgc agatccttta caaccgcacc atggtgcagc
                                                                        60
tgggcatctg tgccttccgc caaggcctga ccaaggacgc acacaacgcc ctgctggaca
                                                                       120
tecagtegag tggccgagec aaggagette tgggccaggg cetgetgetg cagecccage
                                                                       180
taaggttgaa gccaaggaag agtcggagga gtcggacgag gatatgggat ttggtctctt
                                                                       240
tgactaatca ccaaaaagca accaacttag ccagttttat ttgcaaaaca aggaaataaa
                                                                       300
      <210> 723
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 723
gcaaggcgcc gggggacacg ttggctgcgt tttcggcgga ctggccgggt acaaaaatgg
                                                                        60
ctgtggctag cgatttctac ctgcgctact acgtagggca caagggcaag tttgggcacg
                                                                       120
agtttetgga gttegaattt eggeeggaeg gaaagettag atatgeeaae aacageaatt
                                                                       180
acaaaaatga tgtgatgatc agaaaagagg cttatgtgca caagagtgta atggaagaac
                                                                       240
tgaagagaat tattgatgac agtgaaatta caaaagaaga tgatgctttg tggcctcccc
                                                                       300
```

```
<210> 724
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 724
                                                                        60
agaaaacaac ttggcatttc tatactttac aggaaaaaaa attctgttgt tccattttat
gcagaagcat attttgctgg tttgaaagat tatgatgcat acagttttct agcaattttc
                                                                       120
tttgtttctt tttacagcat tgtctttgct gtactcttgc tgatggctgc tagattttaa
                                                                       180
tttatttgtt tccctacttg ataatattag tgattctgat ttcagttttt catttgtttt
                                                                       240
                                                                       300
gcttttgttt ttttcctcat gtaacattgg tgaaggatcc aggaatatga ctcaaagggg
      <210> 725
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 725
tgtagaggag gtgaggaaat actttaatgt gttggaaacc atgggtttga acagaagata
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cgcatatgga gtggggaatg gaaagaaaac tttgtgctac atttactgta aattatatct
                                                                       120
tattgattca gtaaattcag gtggaatacg gaagttcaaa tttaaagatt acccatggac
                                                                       180
tectgacete aggtgateca ecegeeteag ceteceagtg ggetgggatt acaggtgtga
                                                                       240
gccaccatgc ccagcctcat cattettatt aactggttta atcetttcaa taatectatt
                                                                       300
      <210> 726
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 726
teggeacgag ggeaagggae tteetgtaac aatgeatete atatttggaa tgacccagte
                                                                        60
ctctcccaag tccacacagg ggaggtgata gcattgcttt cgtgtaaatt atgtaatgca
                                                                       120
aaattttttt aatcttcgcc ttaatacttt tttattttgt tttattttga atgatgagcc
                                                                       180
ttcgtgcccc cccttccccc ttttttgtcc cccaacttga gatgtatgaa ggcttttggt
                                                                       240
ctccctggga gtgggtggag gcagccaggg cttacctgta cactgacttg agaccagttg
                                                                       300
      <210> 727
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 727
                                                                        60
egteegetet cattggetet getggteeag aaageageee aggeetttaa eteegggetg
ctgtgtgtgg catgtggttc ataccgaegg ggaaaggcga cctgtggtga tgtcgacgtg
                                                                       120
ctcatcactc acccagatgg ctggtcccac cggggtatct tcagccgcct ccttgacagt
                                                                       180
ctteggeagg aagggtteet cacagatgae ttggtgagee aagaggagaa tggteageaa
                                                                       240
cagaagtact tgggggtgtg ceggeteeca gggecaggge ggeggeaceg gegeetggae
                                                                       300
     <210> 728
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 728
atagtcagaa aacaacctgg catttctata ctttacagga aaaaaaattc tgttgttcca
                                                                        60
```

120

ttttatgcag aagcatattt tgctggtttg aaagattatg atgcatacag ttttctagca

```
attitiettig titettitta eageattqte titqetqtae tettqetqat qqctqctaqa
                                                                       180
ttttaattta tttgtttccc tacttgataa tattagtgat tctgatttca gtttttcatt
                                                                       240
tgttttgctt ttgtttttt cctcatgtaa cattggtgaa ggatccagga atatgacaca
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      <400> 729
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agttctaagt tttccaggtg tcatagtaac tccatagtct cccttaaatc cctttttqaa
                                                                       120
attitteaac atagticeta gigggatggg citactitgi geetgaeeca igittitetea
                                                                       180
agacaaaaca ccatggcagg aacagccact tgcatctggt cccggtgcca cactgcggtg
                                                                       240
cttggtgtgg ttgtggagcc tgtccctgcg cgccttgctc ccgttgagcc acgctgtctg
                                                                       300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 730
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teccagettt etggaageaa tectaceeca geecaagett eccagagteg ageettaate
                                                                       120
cttctcactt ctcagtgtca gagcagaaat gaatcctggg gttgactgtg tccattcggq
                                                                       180
ttattagcag ctaagaagcc cagacgagta gtgtgagctg ccttgggagc ctcagtgagg
                                                                       240
gcactgggac tggcctcact ctcttgcccc cagcctagtg ggctttctcc tctgtctctc
                                                                       300
      <210> 731
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 731
gtecatacat ggageteect ggagecegtg tgetetegtg tqaetqaacq ttttqtqatq
                                                                       60
aaaggaggag aggctgtctg cctttatgag gagccagtgt ctgaattgct gaggagatqt
                                                                      120
gggaattgca cacgggaaag ctgtgtggtt tccttttacc tttcagctga ccatgaactc
                                                                       180
ctgagcccga ccaactacca cttcctgtcc tcaccgaagg aggccgtggg gctctgcaag
                                                                      240
gegeagatea etgeeateat eteteageaa ggtgacatat ttgtttttga eetggagace
                                                                      300
      <210> 732
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 732
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ttatgacata ccaagacgaa atcttttgga tcacttaaca agaatgagat ctaatctttt
                                                                      120
gaagagcact cgcagatttc tgaaaggaca ggacgaagat caagtgcaca qtqttcctat
                                                                      180
agcacaaatg gggaactacc aggaatacct caagcaagta ccttctccac taagagaact
                                                                      240
tgatcctgat cagccacgaa ggttgcatac atttggcaac ccctttaagc tggataagaa
                                                                      300
      <210> 733
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      <212> DNA
      <213> Homo sapiens
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      <222> (1)...(300)
      <223> n = A, T, C or G
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aacctctact tggtggccac cacatcgaag aatgccaatg cctccctggt gtactccttc
                                                                       120
ctgtataaga caatagaggt attctgcgaa tacttcaagg agctggagga ggagagcatc
                                                                       180
egggacaact ttgtcategt ctaegagttg etggacgage teatggactt tggetteeeg
                                                                       240
cagaccaccg acagcaagat cctgcaggag tacatcactc agcagagcan caagctggag
                                                                       300
      <210> 734
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 734
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                                                                        60
aacctetact tggtggccac cacatcgaag aatgccaatg cetecetggt gtactcette
                                                                       120
ctgtataaga caatagaggt attctgcgaa tacttcaagg agctggagga ggagagcatc
                                                                       180
egggacaact tigtcategt etaegagtig etggacgage teatggacti iggeticeeg
                                                                       240
cagaccaccg acagcaagat cctgcaggag tacatcactc agcagagcaa caagctggag
                                                                       300
      <210> 735
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 735
ggcacaagga ccctcctgcc aacctgtttg aagacatgga cctcaacaag gatggcgagg
                                                                        60
teceteegga ggagttetee acetteatea aggeteaagt gagtgaggge aaaggaegee
                                                                       120
tcatgcctgg gcaggaccct gagaaaacca taggagacat gttccagaac caggaccgca
                                                                       180
accaggacgg caagatcaca gtcgacgagc tcaagctgaa gtcagatgag gacgatgagc
                                                                       240
gggtccacga ggagctctga ggggcaggga gcctggccag gcctgagaca cagaggccca
                                                                       300
      <210> 736
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
     <223> n = A, T, C or G
     <400> 736
ttcaagcccc cagcctacga ggatgtggtt caccgcccag gcacaccacc cccccttat
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actgtggccc caggecgccc cttgactgct tecagtgaac aaacctgctg ttectectca
                                                                       120
tecagetgee etgeecactt tgaaggaaca aatgtggaag gtgttteete ceaccagagt
                                                                       180
gcccccctc atcaggaggg tgagcccgnn nnnnnnntga cccctgcctt cacacccccc
                                                                       240
tectgeeget atgeegttta actggegaet eeggtattga getetgeeet tgteetgeet
                                                                       300
     <210> 737
      <211> 300
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<212> DNA

<213> Homo sapiens <400> 737 agaaccatca tgggctggac attggacttc ctccgggagc ggctgttggg ctggatccaa 60 gaccagggtg gttgggacgg cetectetee taetttggga cgcccacgtg gcagaccgtg 120 accatctttg tggcgggagt gctcaccgcc tcactcacca tctggaagaa gatgggctga 180 ggcccccagc tgccttggac tgtgtttttc ctccataaat tatggcattt ttctgggagg 240 ggtggggatt gggggacatg ggcatttttc ttacttttgt aattattggg gggtgtgggg 300 <210> 738 <211> 300 <212> DNA <213> Homo sapiens <400> 738 gaatgacatt catgccagtt cttccctgaa tggcagaagc actgaagaag taaggcccat 60 tgatgaaaac ttggggcaaa ctggaaaatc tgctgtttgc attcaccaag atataaatga 120 tgatcatgtt gaatatgtta caggaattca gcatttgaca agcgattcag acagtgaagt 180 ttattgtgat tctatggaac aatttggaca agaagagtct ttagacagct ttacgtccaa 240 caatggacca tttcagtatt acttgggtgg tcattccagt caacccatgg aaaattctgg 300 <210> 739 <211> 300 <212> DNA <213> Homo sapiens <400> 739 cgggactggt accaccgcat cgaccccacc gtgctgctgg gcgcgctgcg cgttgcggag 60 cttgacgcgc cagctggtac aggacgagaa cgtgcgcggg gtgatcacca tgaacgagga 120 gtacgagacg aggttcctgt gcaactcttc acaggagtgg aagagactag gagtcgagca 180 gctgcggctc agcacagtag acatgactgg gatccccacc ttggacaacc tccagaaggg 240 agtccaattt gctctcaagt accagtcgct gggccagtgt gtttacgtgc attgtaaggc 300 <210> 740 <211> 300 <212> DNA <213> Homo sapiens <400> 740 gtacgagagt ctgttgaaca acaggctgat agtttcaaag caacacgttt taaccttgaa 60 actgaatgga agaataaact atcctcgcct gcgggaactt gaccggaatg aactatttga 120 aaaagctaaa aatgaaatcc ttgatgaagt tatcagtctg agccaggtta caccaaaaca 180 ttgggaggaa atccttcaac aatctttgtg ggaaagagta tcaactcatg tgattgaaaa 240 catctacctt ccagctgcgc agaccatgaa ttcaggaact tttaacacca cagtggatat 300 <210> 741 <211> 300 <212> DNA <213> Homo sapiens <400> 741 cagteettea atgeegtegt caattacace aacagaagtg gagacgeace ecteactgte 60 aatgagttgg gaacagctta cgtttctgca acaactggtg ccgtagcaac agctctagga 120 ctcaatgcat tgaccaagca tgtctcacca ctgataggac gttttgttcc ctttgctgcc 180 gtagctgctg ctaattgcat taatattcca ttaatgaggc aaagggaact caaagttggc 240 attecegtea eggatgagaa tgggaacege ttgggggagt eggegaacge tgcgaaacaa

300

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      <212> DNA
      <213> Homo sapiens
      <400> 742
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                                                                         60
tetggagtte gaatttegge eggaeggaaa gettagatat gecaacaaca geaattacaa
                                                                       120
aaatgatgtg atgatcagaa aaqaggctta tgtgcacaag agtgtaatgg aaqaactgaa
                                                                       180
gagaattatt gatgacagtg aaattacaaa agaagatgat gctttgtggc ctcccctga
                                                                       240
tagggttggc cgacaggagc ttgaaattgt aattggagat gagcacatat cttttaccac
                                                                       300
      <210> 743
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      <212> DNA
      <213> Homo sapiens
      <400> 743
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                                                                        60
caaaggcgac ccgttccaga atgacccctt tgcagaacag cagacaactt caacagatcc
                                                                       120
atttggaggg gaccetttca aagaaagtga cecatteegt ggetetgeea etgacgaett
                                                                       180
cttcaagaaa cagacaaaga atgacccatt tacctcggat ccattcacga aaaacccttc
                                                                       240
cttaccttcg aagetcgacc cctttgaatc cagtgatccc ttttcatcct ccagtgtctc
                                                                       300
      <210> 744
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 744
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tcagggtccg gccaacagtt ctgatgccct tgtggaacgt gctggggttt gcactggggg
                                                                       120
eggggacege ettgeteggg aaggaaggtg ceatggeetg cacegtggeg gtggaagaga
                                                                       180
gcatagcaca tcactacaac aaccagatca ggacgctgat ggaggaggac cctgaaaaat
                                                                       240
acgaggaact tetteagetg ataaagaaat ttegggatga agagettgag caccatgaca
                                                                       300
      <210> 745
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 745
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                                                                        60
aacttggggc aaactggaaa atctgctgtt tgcattcacc aagatataaa tgatgatcat
                                                                       120
gttgaagatg ttacaggaat tcagcatttg acaagcgatt cagacagtga agtttactgt
                                                                       180
gattetatgg aacaatttgg acaagaagag tetttagaca getttacgte caacaatgga
                                                                       240
ccatttcagt attacttggg tggtcattcc agtcaaccca tggaaaattc tggatttcgt
                                                                       300
      <210> 746
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
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 $\langle 223 \rangle$  n = A,T,C or G <400> 746 gananchcag atchchttga aatgeetete ttttaataaa egttteettt gtteaetatt 60 gcctgctagt tcatcttgta aatccttggc tttaagctcc aacttagtcc tctgcttaat 120 ctgctcttgt ctttcagcac taagctgttc ttttcttct ttcatagctg aaatttttgt 180 tttcaattet ctaacttggc gttcgatatc ctccatttta tctcttgcat cctgctgagc 240 atctcttaat tgtctggatt tttctccact agtctctcgc ttagcagaaa gctcatcaag 300 <210> 747 <211> 300 <212> DNA <213> Homo sapiens <400> 747 ccgaagaaat ataacacatt ttggacctac aactettaga teaactettg cetatgggat 60 geteaggete tgtgateete taeettatga tataatagte gateeaatgt gtggaactgg 120 ggcaatacca atagagggg ccactgaatg gtctgactgc ttccatattg ctggtgataa 180 taatccactg gctgtgaata gagcagcaaa taacattgca tctttattga ccaagagcca 240 aattaaagaa ggcaaaccct cctggggctt gcccatagat gctgttcagt gggatatctg 300 <210> 748 <211> 300 <212> DNA <213> Homo sapiens <400> 748 atteteteaa taatggeeag eegaaaagta egegetgeea ggeatetgee teegeggagt 60 cattaaactc ccacagtggt caccccactg ctgatgtaca gactttccag gcaaagcgcc 120 atattcatca acaccgtcag tcttactgta attataacac tggaggtcag ttagagggca 180 atgcagccac ttcctatcag aagcagactg acaaacccag ccactgtagc cagtttgtga 240 cacctccgcg gatgaggaga cagttctcag cacccaatct caaagctggt cgagaaacca 300 <210> 749 <211> 300 <212> DNA <213> Homo sapiens <400> 749 tttacaatca ggaacttaac gagactcgtg ccaaacttga tgagctttct gctaagcgag 60 agactagtgg agaaaaatcc agacaattaa gagatgctca gcaggatgca agagataaaa 120 tggaggatat cgaacgccaa gttagagaat tgaaaacaaa aatttcagct atgaaagaag 180 aaaaagaaca gcttagtgct gaaagacaag agcagattaa gcagaggact aagttggagc 240 ttaaagccaa ggatttacaa gatgaactag caggcaatag tgaacaaagg aaacgtttat 300 <210> 750 <211> 300 <212> DNA <213> Homo sapiens

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      <212> DNA
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      <400> 751
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attoctttgg atgatattga atttgctaag ggtagaggaa catttccctg tgatatttct
                                                                       120
gtccttgata ttcatcaaga tttagactgg aatcctaaag tttctaccct gaatgtctgg
                                                                       180
cctctttata tctgtgatga tggtgcggtc atattttata gggataaaac agaagaatta
                                                                       240
atggaattga cagatgagca aagaaatgaa ctgatgaaaa aagaaagcag tcgactccag
                                                                       300
      <210> 752
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 752
aaagaactgt ctcacgcaac cattgattct aaaactggcg atttagggga catcaatgct
                                                                        60
gagcagcttc ctgggaggga acatcttaat gaacctggta ctagagaagg acagactcgt
                                                                       120
ctaatcagag atggggagaa agtcgaagcc tatcagtgga gtgttagtga agggaggtgg
                                                                       180
ataaaaattg gtgatgttgt tggctcatct ggtgctaatc agcaaacatc tggaaaagtt
                                                                       240
ttatatgaag ggaaagaatt tgattatgtt ttctcaattg atgtcaatga aggtggacca
                                                                       300
      <210> 753
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 753
gacagacteg tetaateaga gatggggaga aagtegaage etateagtgg agtgttagtg
                                                                        60
aagggaggtg gataaaaatt ggtgatgttg ttggctcatc tggtgctaat cagcaaacat
                                                                       120
ctggaaaagt tttatatgaa gggaaagaat ttgattatgt tttctcaatt gatgtcaatg
                                                                       180
aaggtggacc atcatataaa ttgccatata ataccagtga tgacccttgg ttaactgcat
                                                                       240
acaacttctt acagaagaat gatttgaatc ctatgtttct ggatcaagta gctaaattta
                                                                       300
      <210> 754
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 754
cagagatcaa acaattgtag atcccttcag ttcaaaacat aatgtgattg tgggcagaaa
                                                                        60
tggatctgga aaaagtaact ttttttatgc aattcagttt gttctcagtg atgagtttag
                                                                       120
tcatcttcgt ccagaacagc ggttggcttt attgcatgaa ggtactggtc ctcgtgttat
                                                                      180
ttctgctttt gtggagatta tttttgataa ttcagacaac cggttaccaa tcgataaaga
                                                                      240
ggaagtttca cttcgaagag ttattggtgc caaaaaggat cagtatttct tagacaagaa
                                                                      300
     <210> 755
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 755
cagcggatgg ccgaaaatct aggettegtt gggeetttga aaagecagge tgcagatcaa
                                                                       60
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120

attacgaago tgtataatot ottootgaaa attgatgota otcaggtgga agtgaatooo

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tttggtgaaa ctccagaagg acaagttgtc tgttttgatg ccaagataaa ctttgatgac
                                                                         180
aacgcagaat teegacaaaa agacatattt getatggaeg acaaatcaga gaatgageee
                                                                         240
attgaaaatg aagctgccaa atatgatcta aaatacatag gactagatgg gaacattgcc
                                                                         300
       <210> 756
       <211> 191
       <212> DNA
       <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(191)
      <223> n = A, T, C \text{ or } G
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cccagetect tgggaggetg aggegggaga attgettgaa cccgggggacg gaggttgcag
                                                                         60
tgagccgaga tcgcactgct gtacccagcc tgggccacag tgcaagactc catctcaaaa
                                                                        120
aaaaaaaann aaaaaaaaan ccctgttaan nncannggtn taagngaatn gttnangnct
                                                                        180
ttaaannagg t
                                                                        191
      <210> 757
      <211> 179
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(179)
      <223> n = A,T,C or G
      <400> 757
caaataagtt aaatgtatat ggcattggat tggaattgga ggtatcagtg tgaactcatg
                                                                         60
gttttgggtt ttttgttttt tgcctttttt gttttgtttt tgtttttga ggcagggtgt
                                                                        120
cactetgttg cecaggetgg agtgeattag neaccatnae agntnageae annetatge
                                                                        179
      <210> 758
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A,T,C or G
      <400> 758
caacagtccc aaccagtcga attagaccca tttggtgctg ctccatttcc ttctaaacag
                                                                         60
tagatacttc tgatggattc tcggcattaa ctcctgtttc ataaaagtgt gaacagtttt
                                                                        120
atgaatttga aagaaaattt ggtagctctt tatagcattc attcttaaag atcagtccta
                                                                        180
ataggtgatn thtaaatnnn ccanntanaa gaatgaagch tototachgg gtagtaactt
                                                                        240
gatncctctt nagganaana gggngctaaa tngcaagctc tnactaatgg ttctgctact
                                                                        300
      <210> 759
      <211> 62
      <212> DNA
      <213> Homo sapiens
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<400> 759
ggggtatcag ttactggatc taagcatgtc cactctacac gctttttttt tttttttt
                                                                         60
                                                                         62
      <210> 760
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 760
cacaaggtca ggagttggag accagcctgg ccaacgtggt gaaaccccgt ctctactaaa
                                                                         60
aatacaaaaa ttagccgggc gtqqtggcac atgcctgcag tcccagctac tgagaaqqct
                                                                        120
gaggcaggag aatcgtttga atctgggagg tggaggctgc agtgagccaa gattgcgcca
                                                                        180
ctacacttca gcctgggcaa cagagtgaga ctctgtctaa aaaaaaacac taagcatgta
                                                                        240
gtttctatat aactagaagc ataggatatt ctgatctgca atccatcaat cagtgccaat
                                                                        300
      <210> 761
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 761
tttgaatatg gactatagtt agataatagt cttaggtaat agttaaatgt cctgggtttg
                                                                        60
attattgtgg ttatatgggg gaatgtcctt gtactcagaa gacatatgct gaagtacagt
                                                                       120
atttagagat aaaagtgtca tgtttgcaac taactttcaa atagttcaga aaaaaaaata
                                                                       180
tgtatatatg tgtctgtgcc tgtatatgaa agagagaaca caaatgtggc aaaatattaa
                                                                       240
caattggtgg gccaggtatg gtgggtggct catgcctgta atcccagccc tctgggaggc
                                                                       300
      <210> 762
      <211> 284
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1) ... (284)
      <223> n = A, T, C or G
      <400> 762
cctttaaaag gcagctgcaa atgacccatt tttgtgataa aactaactca gagtacaggt
                                                                        60
gcaaccccac tgatgtaaac agcttttgag gctttgaggt tttagatgac agtcatctaa
                                                                       120
aacaccagct totcaaatac atcagcttca qqcctqqqct qaqcctqaqq aqcctcctaq
                                                                       180
gaagttagag atttttgage teaaaggget caggagagge ceaatagttt teatgettea
                                                                       240
ttaacccgaa ggcttcccga caatcgncca agggttncta aaag
                                                                       284
      <210> 763
      <211> 289
      <212> DNA
      <213> Homo sapiens
      <400> 763
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                                                                        60
ttaaacctag gatccattaa atccgaaggc taaagaaagt caccacacat caggactaaa
                                                                       120
atgttgactt cccataaaca ctattttatt ttatttttat tttattattt tattttattq
                                                                       180
tatttttett agactgagte ttgetetgtt gecaggetea agttgeagtg agecaagate
                                                                       240
acgccactgc attccagcet gggcgacaga gcaagattec atettaaaa
                                                                       289
```

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<210> 764
      <211> 295
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(295)
      <223> n = A,T,C or G
      <400> 764
ccagcctggc caacatggca aaacactgtg tacactacaa atagaaaaat tggccgggca
                                                                        60
tcatggtgtg tgcccgtagt cccacctact caggaggctg aggcaggaga atcgcttgag
                                                                       120
cctggagggc ggaggttgca gtgagacgat accgtaccac tgcactccag cctgggcaac
                                                                       180
agcaagactc cgtctccaaa aaaaaaaatt taaaangatt tttnttatgg nggtttcana
                                                                       240
aatggttgtg nggcaggctg gntgnantgg cacangcctg nantnccagc acttt
                                                                       295
      <210> 765
      <211> 297
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(297)
      <223> n = A, T, C or G
      <400> 765
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gngcagctta nccanttttg aatatgcaat tcagtggatt aagtacattn tcantqttqt
                                                                       120
anagecateg ceateateca tetecaquaq ttqtqcatet taccaquatte tqtqccaqt
                                                                       180
gaacaataac tececacete ceetteeeet ageaacagee acceetttig tetetateat
                                                                       240
caacttcact actcatattt ctcatgtaag tggaatcata cagtatttqt ccttttq
                                                                       297
      <210> 766
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 766
ctctcatgga gctccagagt gacatccagc attgttagca tgcgatcaac atcatagacc
                                                                        60
atcagtgtgc aacacgagtt accaagaggg gctttcttag tggaaagaga gtgataaatt
                                                                       120
ggtaacatgg aagctacttc ctgtqttctt tttctqaqaa ctaqaaqaaq qaatacaagt
                                                                       180
tggccccatg ctaatgtgta tatacctttt ttacatacca atcactagtg tgtttagaaa
                                                                       240
ttaggaaagg tcagtaagtc tccagtatat ataaacatct atagtgtatg gaaaggtctt
                                                                       300
      <210> 767
      <211> 290
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
     <222> (1)...(290)
     <223> n = A, T, C or G
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anttancnng nngnaanctt aaangaacca anttnaaccn aaanagttcc ggnaaaaata
                                                                       120
ncaaaaancn gaaanttnta aaagggaagn ccccctaaaa ncnngaaaat tcaccnttcn
                                                                       180
ttagggttnc ntnttcantt tngatngncn ctngaggctn gcaanttttn aancaanctt
                                                                       240
tnaaatenng angnetnttn tgaaaanatt teancecean enetaaaatt
                                                                       290
      <210> 768
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 768
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caactcagct atttgagcac cttttataga gtggaaatgg ggttgggcag tagagaagag
                                                                       120
cacttttaga gaggetttte tgeagtagte aggggttaca cetgttaace agceataatt
                                                                       180
ttttttttaa geggetgtge tgaggatgag ceceatgtag ttggtgeagg tggggacaca
                                                                       240
ctgcctgtgt aactagaaaa actaggcatg gccgggcacg gtggctcaca cctgtaatcc
                                                                       300
      <210> 769
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 769
ctgcaatttc tccaaagett gccactttcc agcctgtttc cccaattcct ctgtgctctc
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ctagagetet gtetgaatee tegeageeae acetaggtet gagaacteag getttgagtt
                                                                       120
actgatette ettggattag gagaacaggt gtteeteete eeeteteeta geageeetaa
                                                                       180
tgtctgacct agcctatcaa gccttaggcg ctggaagaac ccttctcaga cacgcaggac
                                                                       240
                                                                       300
ccaggtaaag tcaaagcttt gecettttge ccactgtetg ctaccaggge tcacccaetg
      <210> 770
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 770
aggggeetta cattacttte ttgcageact gatggetttt gtttgagget geacaaatte
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ctgcatttcc cttgggttga atggtaggga tgcgggcagt tggtgactgg gtgaaccacc
                                                                       120
tgacttgage agggetacga etetetetge aaacgaaace cagagacatg aacagtgetg
                                                                       180
agatttetea gtggttteee atgtaggetg ettteeaagg geageaagea tggetteate
                                                                       240
acteacceag tgettetgat teageactgt gatgeteggt taagttttaa tgaggtttta
                                                                       300
      <210> 771
      <211> 300
      <212> DNA
     <213> Homo sapiens
      <400> 771
caagattgag cacacggaga cagatactgt ggaccccaga agcaatggac ggccccccac
                                                                       60
tgctgctgct gtccccaaat ctgcgaaata catcgctcag gtgctgcagg actcagaggt
                                                                      120
ggacggggat ggggatgggg ctcctgggag ctcaggggat gagcccccat catcctcatc
                                                                      180
ccaaqatqaq qaqttqctqa tqccacccqa cgccctcacg gacacagact tccagtcttg
                                                                      240
cgaggacagc ctcatagaga atgagattca ccagtaaggg gagggagggg ccctggaggc
                                                                      300
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<210> 772

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<211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 772
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                                                                         60
 tttgccggca tgctttgcac agcccctggt acccagtaag gcgattatta gcattggtgc
                                                                        120
 ttgctggaat cagatattcc agaatattct gtcacagctc atcgttgccc tcttcttttc
                                                                        180
 tgtgggtaaa ctgaggcaga aactcaggct gggtggaact ctgcagcctc agctggagac
                                                                        240
 ctcgtctggc caaggactgt ggggacacag gccctctagg ctgccacctc atggtcccag
                                                                        300
       <210> 773
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 773
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                                                                        60
tttcaccatc gtttctattc ataacttacc tgcaaagtga ttatctgact agtactactg
                                                                        120
caacaaagat aataaagtgc ctgatgttta tatcaaatag gatatggcat gtttctgagt
                                                                        180
gtttctaaag aaaaatactg aatgaacccc tcgcctaacc tagtgcctgt ggtaacaata
                                                                        240
actgacatgc attgagcgct tactgtgtgc caggtgcttg ttcgaggtac tttaccggta
                                                                        300
      <210> 774
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 774
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gagetttata tetggagatg tgggateata aaaaegtett tttaatetga tgateattaa
                                                                       120
aacacccgga gatgaggcac agctgctaat cggaatacat ttccatttct gcggggattg
                                                                       180
agcatgtctt cggaaccctc tgcaatagct ttagaaacaa acgttccttt tatcaggtga
                                                                       240
gaaaactacc ctatggcatg cctccggata tgtagttctt cctaggctac aaaatatcag
                                                                       300
      <210> 775
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 775
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taaggatgag gttagtagga gggctgcttt ccctcagcct ggattactgc tttgtcctag
                                                                       120
aagatgaaga tggcatatgt ggttatgcct tgggcactgt agatgtgacc ccctttatta
                                                                       180
aaaaatgtaa aatttcctgg atccccttca tgcaggagaa gtataccaag ccaaatggtg
                                                                       240
acaaggaact ctctgaggct gagaaaataa tgttgagttt ccatgaagaa caggaagtac
                                                                       300
      <210> 776
      <211> 288
      <212> DNA
      <213> Homo sapiens
      <400> 776
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                                                                       60
tetteatagg aaagecacce tggtgccaag cetagettgt ggggaggggt atgtgtteca
                                                                       120
gaaactgctc tttgtgttcc cttcaatgag gaaacaacat gtgtctactt atgtggcatc
                                                                      180
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```
caactgcttg gagetecaca ettecettte gegaeteagg etetggtget gttgccaate
                                                                         240
cttqcttqqc aaaqactqtt cqatcatqtq qqqtccttat ttacaagg
                                                                         288
      <210> 777
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 777
tgaaactttg taatttggac cccctaattt tgtacatgtt gatgatagga ataagggctt
                                                                         60
                                                                        120
cgtttatttt cactgcatgc tctctatgga aagaggatgt gctaagcaaa caagcattgt
aaacaatatt tcagaggcaa ggttttggcc tgctttaaaa aaataaaatg tttgcaagta
                                                                        180
caattaaaaa ccagtataag ggacaggggt gggatgaaaa cctgtctcta agattacgaa
                                                                        240
gcctgcgtta tttcccctaa atccccttcg aggaagattt gaatccctca tcaacaaatt
                                                                        300
      <210> 778
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (300)
      \langle 223 \rangle n = A,T,C or G
      <400> 778
                                                                         60
gcctctgtcc tgaacttttt aacccggtgc cacaacccga gggtctccat aggggcaggt
                                                                        120
aaacggggat tttaatcatt ttaagtgtct tagaatgata ttttgggaaa aagcactcct
tttcctaagg actgcgactc ggtgaacaga aaggaggcta tgcggtgtgg ccagccaact
                                                                        180
                                                                        240
caaqqaqqac qaaqcaqcct ttqcctctaa actqcctgga accanangcg tattnttctg
                                                                        300
ancentenna ggnagtgetg agtactgatg cagtetgtag ggantaactn cetteccetg
      <210> 779
     <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 779
gttaagagca ctgaagcggg ggtcagaggc ctggctttgt ctataactca ccgagtggca
                                                                         60
etgggettee etetgeette aegttteate tetgacetga ggggeetgge tagatggete
                                                                        120
ttctggcttt gacacatttc tactggggcc caggctcaag tctcggtggc cctgggtggt
                                                                        180
cactggagac tgttcctgtg gaggccactt caaggctgcc ccggaggtcg cccaacctgc
                                                                        240
ttctacagca ccctggggtc gcccttccc taacgaggag ctcccaagat gtagttttgt
                                                                        300
      <210> 780
      <211> 294
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(294)
      \langle 223 \rangle n = A,T,C or G
      <400> 780
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                                                                         60
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gaggcaggag aatggcgtga aaccaggagg aggagcttgc agtgagccga gatcgtgcca
                                                                     120
180
caaatgcntc ccattgngat agtcctacnt tatgngacat taacctatat tcctgggtcc
                                                                     240
ttttaattcc caactactgc tnttanaggt cttanccttt tatgttaatt ttta
                                                                     294
      <210> 781
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 781
agtttaaaaa tacttctttg taaaagttat tgcacaaaga aaagacatga atgtgtccct
                                                                      60
gttatgtact cacaaggata atgatggggt tgttgctcat taatactgtt tcttgtgcaa
                                                                     120
taacttttac aaagaagtat ttttaaactg atcattaatt ttatgaccac agaaatgaga
                                                                     180
tgcaaaattt atgctattgt cagtggcaca ggctcacagc accactgaca ttttgtgtga
                                                                     240
ttgtaataga atggctgcca actaatgatt ctgtagacat ttcatttgag tgtgcttttc
                                                                     300
      <210> 782
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 782
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                                                                     60
gagteegtgg gggeagaage taccateetg tgeetgeeet caeteteagt gtgaetggte
                                                                    120
ttcaggatgt ttaggtggct ccacatgcgg atgtacagct ttcccctgct tgttttcccc
                                                                    180
atggcatatt aacagcgaga tctgcaagaa tacatcattt tgtacagaac aggatgtatt
                                                                    240
tettttaaac tacgtteetg tgtggacaag tggtateata tgcaaaggtt taaggacegt
                                                                    300
      <210> 783
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 783
getgtgttge ecagactggt etteacetee tgggetcaag tgateeteet eceteageet
                                                                     60
ccccaagtgc tgggattata gatgtgagcc cctgcaccag acaattatat ttattttaa
                                                                    120
aaacgcccct catgaagtct gggtaattct ctccagattt ctccttatca acaaatttat
                                                                    180
aagagttagg aaaaaaatga tgtaaataaa gcacttaaat tgcgacagtg gttctattct
                                                                    240
taacatcata atgcttatga ctaaggagca ttctttttt tataaattaa atgtattctg
                                                                    300
      <210> 784
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 784
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                                                                     60
gaaatacaga acatttcctg aaaccgtgtg gttgaggtga aacaggcatt ttgcagtctt
                                                                    120
atattttgag taaggccaaa cctgcctagt gttataaaac tagacaaaaa acccaggtac
                                                                    180
ccggtcttgc aggatagaaa tgtgtgacta aaatgaagca tcgatctgag aagactacaa
                                                                    240
attagcggga acctttggac aggagcatgc tatacattac ttagattaat gttgatattt
                                                                    300
     <210> 785
     <211> 300
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<212> DNA

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<213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 785
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                                                                         60
atgaagctgg ataatttatg aagaaaagag gtttatttgg ctcacagttc tataggctat
                                                                        120
acgagatgca tcatgccacc attttcctgg agcccttcag gaagcttcca ctcatggcag
                                                                        180
aaggtgaagg gcagccagca tgttcagtga tcacgtggtg agagggaagg caagagagag
                                                                        240
aagagggagg ggtcaggctc tatttaacaa ccagcttttg tnccgtnnca tgaggtgaga
                                                                       300
      <210> 786
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 786
cctatctgtc tactggttgg tcttttacac tacaggtgca cagcaggaga agatgggttg
                                                                        60
acctegtgag tgetgaatag cacgaggaaa taaacagggg aaggaagttt gggtgaatag
                                                                       120
ccaaaaggag tgtatttttc cagtgatact ctcatatcac cttttctaac cttcacagca
                                                                       180
tagatgtgga cataggattg gtgcctccat attgagagtt gaagcatctg tggcaaaata
                                                                       240
ctgtgtcatg cttggtgcta ccacttgaaa cagtgctgga acttagattg ccctcgtgct
                                                                       300
      <210> 787
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 787
gggttettta acetgtgett cetetgteet actteceate etgeaeagtt catagagtea
                                                                        60
ctttctgact atcctataga cacagtaatt ggacctgtgt ttttttctaa tctttatatg
                                                                       120
acagcacatt tectaattea gggaceatee ectateecaa attecateet gtgagatgtg
                                                                       180
aaacctgtga gttcatgtga atgagtggtt gaagggcttg acgccatgta gtctcttagg
                                                                       240
aaggetteag ggtgetetta tgttgttget ttgecattat caaatggeat tgattgatee
                                                                       300
      <210> 788
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 788
gccaagetea gtttttegee ttgaatatga agatgetaga aagagetetg catttaagea
                                                                        60
gagcettgtg caatteeegg accaaatget gaaactgeaa gagtgeeett taaaagaeet
                                                                       120
tettaggeat gtgaettgtt etetaceaga acetttggge aacatgaagg aagteaaagg
                                                                       180
catttactgg cttgctgttg ctgcctgcac agcacctgac cctcaaccag cgtgtttgct
                                                                       240
cctgcttcag tcaactttat atqctttggt cctgtcagat aatctcggct caatgagcat
                                                                       300
      <210> 789
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 789
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agtcattaca agttaggatc ctgggtaaat ggcaacctcc acctcccagg ttcaagcagt
                                                                         60
tctcctgcct cagtccccca catagctggg actacagggg cacaccagct aatttttgta
                                                                        120
ttttcagtag agttggggtt ttaccatgtt gaccaagctg gtctcaaact cctggcctca
                                                                        180
agtgatccgc ccaccttgac ctctcaaagt gctgggatta caggcatgag ccatcacgcc
                                                                        240
cggccagctg ttggttctta atgacacagc ttaactttat tgtgaaaaga ttgcagcaac
                                                                        300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 790
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atgcatatcg gtgcactgta tgtatttcaa aatgcctttc ctatgattgt catgtcctcc
                                                                       120
tttaaggett tteeeteaaa tttattaeaa atttagtatt tttagtaett gatgaeteta
                                                                       180
attacatgaa tgcacctgga atgacatttg taacagaaga cagtctgact tgctttcagt
                                                                       240
attcacaagt totttccagt ttccaagtct tttcctagca gtaatttagg ggagacagag
                                                                       300
      <210> 791
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 791
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tcagcagtca gagtgcacca agaagggtgc tttagtttgg agtttcaaaa ggccatactg
                                                                       120
taatagtgaa ccagaaatca agcagccctc agaaagactg aaacgcatct acggatcatc
                                                                       180
tcaatctgat tgcataaagg tggttcaaga tttattagtg ctttttactc gcctctccaa
                                                                       240
tttttcatat ataatgtcca gcaccacatc aaaaataacc cagcatagat ggagataaga
                                                                       300
      <210> 792
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 792
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ctttgactct gccacctccc actactcagc tcactcatac ttcctgccat ctttcatctt
                                                                       120
cccaataagt atatcatttt cattacatta gtatcagact ttacattatt atgaccatgt
                                                                       180
aaatgctatt tctaactgag ccatgtagta tactctgatt acttttcctt tcttgcacaa
                                                                       240
ctttttcttt tctatggatt gctacttatt ttttattggt tatttgctaa gctttctgga
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      <210> 793
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 793
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aattacctct ttaaaggacc tatctccaaa tagtcacatt gtgggttagg gcttcaacat
                                                                       120
atgaataatg gagggataca gttcggtcca taacatacac taactgtctt tgtatactaa
                                                                      180
tecteatttt gaeagattgt eatttaagaa aaaattatte ttaagtagaa teattgaett
                                                                      240
ggacccaatt ggaagcattg ttgtcacctc tcttttggtg cttccttttt acctttggat
                                                                      300
      <210> 794
     <211> 300
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<212> DNA <213> Homo sapiens <400> 794 caaagatggt cgtattacta aaggtgaata accagcgcgg ggggcacgtg gagtcactgg 60 aacatttgtg caatgctggt gggaatgtca acccgtgcgg ccctctggaa taagcctggc 120 agetecteca agagttaceg tgtgacecag caattecact cetageteca cecacaggaa 180 ttgaaagcaa agacgcaaac agatgcctgt gcaccaaagt tcacggcagc atcettcgcc 240 atagtggcag catccgtcgt cacagcggca tcatccttca tcatagcggc agcatccgtc 300 <210> 795 <211> 300 <212> DNA <213> Homo sapiens <400> 795 etgecatgae tgteatette tteategtta gteagtttat ggaeceettg aattetatee 60 aaggacaccc aagaggaccc caagtttgga geetetagag ceetgttgtt ggetetgeea 120 ctggggagtg ttagcgttgc tagctctgct gaggttgaaa tgaacgtgga aaaaataaac 180 tgatacacat atatgtettt gtaagttetg tteaceacat etgetttgae etacaacaet 240 gctgtgttta tatcaggttg tttataaaac cttggaaact tcgctttcca ctccatttgc 300 <210> 796 <211> 300 <212> DNA <213> Homo sapiens <400> 796 aggaagcatt cacatateet agaatagatg acttggetat caacecettg ceggetgtag 60 ctccccattt gttgtagtct gtatgtgcta tacccaacct agagcagggc gccatgcctg 120 gctaattttt ttttttact ttttacagag atggggtctc actatgttgc ccaggctggt 180 cttgaactcc tggcttcaag tgatactcct gcctgagcct cccaaagtgc tgggattata 240 gacatgagca attgtacttg gctcaaattt ttgttttaat tgggcttttt gtcagaagaa 300 <210> 797 <211> 300 <212> DNA <213> Homo sapiens <400> 797 ctgcaaaatg gactgtgatt caggacetee teettaceta egageaceet gggagggaet 60 gactaatggc ccagggacac acagtcatcc tetgcaggca acagtcaggc ttetacttgc 120 tgaagccgtc aagggcttga ctgtcacact cagtgttctg gaaaacaaat cagtaaagca 180 atttagagga tettttgeaa ateagagaaa aagaateaat aeaaggegaa agaattetga 240 tragractit aaaacgiget talcagaaac tittettete tetittaage tittggileta 300 <210> 798 <211> 300 <212> DNA <213> Homo sapiens <400> 798 gagecacetg aatatttgce acttagcatg tetgatatet atecttgttt ettgteacaa 60 gtatcatcca cattacagac cccgttgtac aaaactgaaa ttctgactgt aacgccatca 120 tgggatagtt ctgacctgct tgctagttga tatgtgaaag cctgaatttt gcttcaaaaa 180 agccattcag gattaacagt gtattgtgta ataaagtgga ctttgtgtga aagttggaga

240

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tcccttgtag ataattcaga actactggaa gtttcacagt acacttgtaa atgatgaaag
                                                                     300
      <210> 799
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 799
gataatcaga accagacttt aaaatgtcct gcacgtgtac cctgcttctt ttcagcttcc
                                                                     60
ctgccatgta tatccgaggc tttgggccta ggggccttat cagtgtgaaa ttagtcccca
                                                                    120
gtgcaaagca gccagtctcc caagagacct tggcagagct gggagttctg tgtgctttgc
                                                                    180
cttttgaaga ctcattcagc tctgccatgt ctcctctaca ctgttttgta caaccttact
                                                                    240
gcacacttaa cactegcatg gggatgcage agtgcecegg cataaggatt ggaggaetgt
                                                                    300
      <210> 800
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 800
ctggatgaag actaagcatt taaatactaa gttgagggca tagtagctgg catgtgccta
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taatcccagt gttttgggag gcctaggcgg gaggatgcct tgagcccagg agattgaagc
                                                                    120
tgcagtgaat tatgagccaa tgcactccag cctgggtgag agtgagaccc tatctcaaaa
                                                                    180
cagcaacaac aacaagatac aaattgagaa actgttactt gatttgcgat atgtattctg
                                                                    240
tccagcagtg atagaataac aaggactggg tttaccttgc tattttaagc aacaatatat
                                                                    300
     <210> 801
      <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 801
acctettett cattgttaaa atggaaataa taatactace tagetegtgg gattgttgtg
                                                                     60
agacaacaac aaatgagaca acagagatct gaaactctgc ctggcccctg gtatatacca
                                                                    120
agtccacagt taaattagcc tttgttacta aatcattgtt tgggtagaaa tcctcagatt
                                                                    180
ttggatttct caagtgctcc ttttctactg tccaaaaggc agaatgttat ttttgctcga
                                                                    240
ttccattatg taatatccta tgaatttgaa atttcggagg aggcacagca tggggctgtg
                                                                    300
     <210> 802
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 802
gtgtggaaac aactttgcat ttgtaaacag tttcccctgc gtgcgaagag cctagaaact
                                                                     60
actotototo ttgagatotg atgtococag tococtoatt gttgaatgtg aatagaatag
                                                                    120
gaaccaccgt tttgcactgt tcatggctat gttgagttat gtgggggaga agggcatatg
                                                                    180
240
ttagtgctgt gtacatacct ctgtcagcac taataacgtg taattatttt atctatttac
                                                                    300
     <210> 803
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 803
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gctgtcgggc ctcagcagag ctgcctaccc acctgagctc cgattcatgt actacgtcga
                                                                         60
tggcaggggc cctgatggtg gctttcgtca agtcaaagaa gctgtcatgc gttatctgca
                                                                        120
gacactcagt tgacacttgt tatatcatgg gaccccggaa attggagtga agctagaaac
                                                                        180
agaaaaccca tgcagggcct cggattccca caaatgtgac aagaggtata gggagtgagt
                                                                        240
cgcagcgctt tgctcgtgac cctgggatca gagcacccat caggcttcca ttactgtggg
                                                                        300
      <210> 804
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 804
cagagaggca gggataccag atatggggaa atctgtaatt acatgcaggc attaaatatt
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taaatatata ttttcttctt ttaattgtgg taaaacacat ataacataaa atttatcqtc
                                                                        120
ttaaccattt ttaagtgtac tgttttgtag tgctgagtgt attacattat tatacaacca
                                                                        180
atttccagca cottttcatc ttgcaaaact aaaactcttt acctattaaa caactactcc
                                                                        240
ctgtttctcc ctcctcccag tccatgagaa gcaccatttt actatctttt ctgtgagttt
                                                                        300
      <210> 805
      <211> 290
      <212> DNA
      <213> Homo sapiens
      <400> 805
atgaggtatg aagccattta atacgaagaa gagctaaaag aatgagaacg tgattgcatg
                                                                        60
aaatgtttag ccagaaatct tgggatatag gagaagaggg ggagacttga ttgattaggt
                                                                       120
tgtaaatatt tgtcctatgg accacggtaa cgtggattag cattcagagt agtaaccagt
                                                                       180
agtgggagtt ggagtcatag agtattgggt ctctttatcc caggagattt ccaatggggt
                                                                       240
cagtttctac tgacctttta gagagaccat gctatgctgt ctttttttt
                                                                       290
      <210> 806
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 806
ctctagcatg tgccataaat tacagtgacc tttaaaaatct cgcttggtca ctgctgaatg
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ggtgagaata ggcttggttc cagtttttaa ggtcacactg tcctaatttg caatgcatca
                                                                       120
Caccatgtac taagttggta acaaccgctt agaggaaagc tttcgttatg caagggagaa
                                                                       180
catcaaaaag ggcacttatc ccaaatgaat gcagcaattt aaaccaaaga tgtttacgca
                                                                       240
gggcaagaac aaagtaaggc aggagtttgg ggtcaactag gctgatgtct ttgaacaccc
                                                                       300
      <210> 807
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 807
atcgagacca tcctggctaa cacggtgaaa ccccatctct actaaaaata caaaaaatta
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getgggeata gtggeaggtg cetgtagtee eagetaeteg ggaggetgag geaggagaat
                                                                       120
ggcgtgaacc cgggaggcgg agcttgcagt gagctgaaat tgcaacactg cactccagcc
                                                                       180
tgggcgacag agtgagactc cgtctcaaaa taaaaaaata aaatgggaat atcaataggg
                                                                       240
cctatttagt agggtggaag tatagctcta atgagatggt ccatactggt cccccagcac
                                                                       300
      <210> 808
      <211> 300
```

```
<212> DNA
      <213> Homo sapiens
      <400> 808
aaatattttc attggttata caactgctgt gtcttttctg agaaactcag ccccaatgtg
                                                                        60
taacaccetg gattecaegg ggcagcaaat tecacacact gcacccatgt tgtgagegga
                                                                       120
gattttcggg ctgaccaaaa cttgaggcga actgagtctc catcttaaca ctcaaacaca
                                                                       180
cttcatggcg gcctggaaac aaggcaatca ttatgaagct tcagcccagt tcttctgaaa
                                                                       240
ccaacgtatt gggcctgctt cattgtctct ctaggggcta atcacaaaca tgtgggaagg
                                                                       300
      <210> 809
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 809
gtggtggctc acgcctgtaa tcccaaagtg catggattac aggtgtgagt gagccaccgc
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ggccggcctc tatcattttc tgactcaqca gctccaccaa aattgacatc ctagcaaaca
                                                                       120
ctgtgaagga attaacctaa gtgcttccag agcatctcat gtaacctcta tggagtaagt
                                                                       180
cactititet gtaacatgtg gettitgace tigatgaaga cittgactic teatecetgt
                                                                       240
ctacatggag gaagatgatt cagtggtggg gaaaatgaac ctcggtaaca tttccaatgt
                                                                       300
      <210> 810
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 810
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                                                                        60
aggaatattt ttgaattetg gttttgaaat atgagggaag gecaagtete ttaggaaagt
                                                                       120
tttacataaa catctactta qcataqccqa ataqttcctq actacaccaq aaaaqaaqtt
                                                                       180
tgagcttcca gtctttttaa ttgtagacag gaaggtaggc aggagagcaa taggaaggct
                                                                       240
cgacaggaaa gcagtttcct agtcggtagc aaagggaagg tttaggtcca gtttgtgcag
                                                                       300
      <210> 811
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 811
cagetatage actaggeage ettgeatect gggtgttgaa agtgeaggee attatectee
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ectetgacet ccaagatgtt aggtggcett tetgtgeete agttttatea tetgtaaatt
                                                                       120
gggtatgatt gtactagtgc ctagtacata aggagtgctg caaagattac atgagtgtct
                                                                       180
ttaaagtcct tacaacagta tctcacacat agtaagcatg gcatgtggta gttactatca
                                                                       240
ttagtccctc ttggagcaat gtatattaaa attttaaaga cagctgtctg gtcaggattg
                                                                       300
      <210> 812
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
```

<223> n = A,T,C or G

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```
<400> 812
ggcacagtca gggagttagt taqtqqtaga ctcagcagga gttggttgct attcagatgt
                                                                         60
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                                                                        120
agacacacag atgcaagcag agatcgtgcc attacactcc agcctgggct acagagtgag
                                                                        180
actctgtgtc aaaaaaaaa nnaannaaan gggccttgng tggtaccagg tanaaaattg
                                                                        240
aatntengtt gneatnagnn acetgtnetg tatgatenet teccatteee cagntgaegg
                                                                        300
      <210> 813
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 813
ccctccttgc ccagagcagg cattgctcat ccactaggca cttcttcctg ccaaggcacc
                                                                         60
tetteetgee aagteagtgt etcaegatee ettteaacae ageeaegagg aageeatgat
                                                                        120
acatcaactg gcactggcaa ataaaatcaa acctatttgc ctatccagtc ttatcccact
                                                                        180
ttgttgtttt ctctaagtag ttggaaaaca acatgtccag agaaaaatac cagaacttat
                                                                        240
tetgagtatg ttetteagag caaacettta gaatettaat gatgtttaga caeteaggaa
                                                                        300
      <210> 814
      <211> 162
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(162)
      \langle 223 \rangle n = A,T,C or G
      <400> 814
cteggageca ceeeggaaga ceatgegeag aggggtgetg atgaceetge tgeageagte
                                                                         60
ggtacatgac cctgcccctg tggatcgcta agcctggtga ctagctanna cctatntggg
                                                                        120
gctcntcttt gtttnngana ctacatagga cgatcgtgga ta
                                                                        162
      <210> 815
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 815
ggcaacaaga ccaaaactct gtctcaaaca aacaaacaaa caaacaaaaa acaatcacat
                                                                        60
tcaaagctta gccaggagaa aaggcgctag gagatacccc actgggatcc ttgaagaatc
                                                                       120
ataacctaaa aatagatgtg aacctgaagt agacaagcga tacaaaatct cagtgagctc
                                                                       180
agtetgggat tggtttaget tgateactee catteagetg cetaceagag gaetgggega
                                                                       240
acgatcactg aagaaagatg ggagteteta cettteteat aagttgttte aatgaaaaat
                                                                       300
      <210> 816
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 816
ttgacggege gggetetqqa etegetgett ggtaaaaace tteetettee teeaqtqcqq
                                                                        60
gacgcactct ctggtatctc ttttgacctc ccggaggctt tcctttgtcg gtcgcggcgc
                                                                       120
cactgtacta tggcatacct cgttttatta cgcttcgcag atagggcatt ctgaaaacaa
                                                                       180
atggagggtt tgtggcagcc ctgagtccag caattgtatc agcgccattt ttccaacagc
```

240

```
atgtgctcac ttggtgtctc tgtgttacat tttggtaatt ctcaaaatat ttaaaacttt
                                                                     300
      <210> 817
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 817
cagagettag acatecaaaa etaateaatg etgaggtgge taaataceta geettttaca
                                                                     60
120
atcattcaaa aatcttgcat tttcaaaaat tcagtgcaag cgccaggcga tttgtgtcta
                                                                    180
aggatacgat tttgaaccat atgggcagtg tacaaaatat gaaacaactg tttccacact
                                                                    240
tgcacctgat caaaagcagt gcttctccat ttgttttgca aaaaaatgtt tttcatttcc
                                                                    300
      <210> 818
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 818
gagaccteta acetecegea gttgageaaa tacactetga gagacattag ggaetgtgge
                                                                     60
aaaaagcagg caatccatgt gtgtcactta agccttgagc acagttcagt aggcaacaaa
                                                                    120
ccaggaactg tcctggcaga taagacagac tgtgcaaggt catcgtcatc ggcatgggaa
                                                                    180
gggcattaat taccaaagtg gagacacagt cactgtctcc aagagcattt ggaatcactt
                                                                    240
cacagagttc tcaaggaggg gaaggctatc tgtcagctcc tggcgggact gctgcccat
                                                                    300
     <210> 819
      <211> 300
      <212> DNA
     <213> Homo sapiens
      <400> 819
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gctgaacctc ttctctgctt cacataacgt tggccacttc acctttcctg agatgtctct
                                                                    120
gaggatgggc atattttaaa gacttgagct tacatcatcg catcttgaaa gaaccgagta
                                                                    180
taattgagtt gctgatacaa gtgggtactt gcaccaggtc cgggtcaccc acatctctat
                                                                    240
ggaaacacat gtttgcttta aagcccagca atcagaagca gatccttata ggagccagca
                                                                    300
     <210> 820
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 820
attaaagttg aagcettet aatttttgaa ggttgageae tttggttatt catggtttta
                                                                     60
tatgacgatc atctttatc catcgctgca gttttctatt ttgacttgaa ttggaggcag
                                                                    120
agetecacea ecceagtgtg tegtetgatt teccagaeta gagtecagee ttteetgtge
                                                                    180
ttgcctggct tccctccatg ttgcttccta ccccaccatc tatacccttc acatccaaaa
                                                                    240
tccaaaacct cacactcata cgagaatccc tgttagggtc ggtttatatt tacacactaa
                                                                    300
     <210> 821
     <211> 272
     <212> DNA
     <213> Homo sapiens
     <220>
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```
<221> misc feature
       <222> (1)...(272)
       <223> n = A,T,C or G
       <400> 821
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                                                                         60
gagagggtcc caggcgcccg aggacaagac gcatgaatgc agaatgaccg cqtqtncttq
                                                                        120
nctgatcacc tggggatnac ccctgnaccc ntgtnttgnt caggacntct tatagntnct
                                                                        180
nnngttntct ttttntnant gttgtnntga tnntttnttn ntttnntgnn qcttnaaqqt
                                                                        240
ntnatgtntn tngtggtnat tttanntgat tt
                                                                        272
      <210> 822
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 822
cagatacage ctagtgteec teagttacae aatagtgtgt ceceeaqtgg taggacagte
                                                                         60
tactactgag teeteetgge atgagtegag etgagattag gatagggtaa tgaceettea
                                                                        120
gttttgggga agggaccaga gctcggccag tgagaagctt ccagctccgt ctggccatat
                                                                        180
ccaggctgct gagggtcctg ggctctgtcc ttaaacctca tcactgacat gacccagcaa
                                                                        240
acctcctcaa gaggaaaaag tccccttggg tcaaacacag cttgtgcagt tctcggggac
                                                                        300
      <210> 823
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 823
ctttgccatt gtggctgtgc gagctcagcc tcctggaaac ccgccctgag cttggttaac
                                                                        60
agcattcact ccaggtttag cccagctcca ggttatcgca ggcaggactc ccgagaacag
                                                                       120
gttcatgttt gctttttggg aggtgctgcg ctaaagtgga aaaccaccct gggccgagtg
                                                                       180
ggacctcccc agctgggcgg ctgttaacca gccaggatgt ctgaccctga gaagtcaccg
                                                                       240
tgcactcttg ggactcattc ttctcatcag caggatgggg tgatggagcg ggccttactg
                                                                       300
      <210> 824
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 824
ggcagagaat cccttgtaga aaggtggggg agaatcatag gatattataa ctgtaaggaa
                                                                        60
catgcaagat tttccagatt atacccttga tagaatagat aagttcctta aggctcagat
                                                                       120
cttgcttaaa gtcgtccagc ctgttagaga caagtagaac acgaagctgg cctctggagt
                                                                       180
ctttattgag tactttgtac aattggtgta gactgggaga gccctcctca cttccccttt
                                                                       240
cttgtgctgt aatttcctgt ggggcagaac acctcagagg tttctgtgca tcaaaataag
                                                                       300
      <210> 825
      <211> 269
      <212> DNA
      <213> Homo sapiens
      <220>
     <221> misc feature
     <222> (1)...(269)
     <223> n = A, T, C or G
```

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<400> 825
gaacaagctc agcctcatca acttcaggtg agtgttgggc tagaggtaga ctaggccttg
                                                                         60
aggtcacage etgeteteca cacagtgage tecagacteg agattttete teattecatt
                                                                        120
ttggttctca gggaaagagt gaggcaggca gcactcccct gactcacact ggcttctgca
                                                                        180
tagggtgctc tggggaagct tggccttatg ccataaggca tctgggcagg gccactgnag
                                                                        240
ctgnctgatg tagcctgcct atttagnat
                                                                        269
      <210> 826
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 826
cacagaccca gaacctgcta tgcggaacaa ggctgatcag caacttgtgg aaatagacaa
                                                                         60
aaaatatgct ggattcattc atatgaaagc agtggctggt atgaagatgt cttaccaggt
                                                                        120
acaacaggca atcaacacat gcctaaaaga tcctgtaagg ggtttcagac aagacgagtc
                                                                        180
ctctagcgct ttgtgttcac acctttactc catgatccgt ggaaaccgcc aacacagacg
                                                                        240
ageetttett atttetttae teaacetett tgatgacaca geaaaaacag acgtgactat
                                                                        300
      <210> 827
      <211> 179
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(179)
      \langle 223 \rangle n = A,T,C or G
      <400> 827
gagetgetca gagetgeett gaaggaegge cacteaggeg tgeecetgtg etgtgeeace
                                                                         60
ctgcagtggc tccttgctga gaatgctgct gtggacgtcg tgagggcccg agcactatct
                                                                        120
tecatecagg gagtggneec tgatggegee aacgtteace teatngtneg anaggatgg
                                                                        179
      <210> 828
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 828
gcttgaagtc tccttggaat ctttccttgt ggtgcacatg ttcttttgat tttattccac
                                                                        60
ctttgattgt cccatagcaa aacaaagaac ccacttaatg gaagaacttg acattctccc
                                                                       120
atgtttgttt caaagccaca taggcatgtg tctacgagat gctgctttga taatgagttg
                                                                       180
gttatactcc tgcatcctac tcaattgcat aaacattctc taattcctaa tgqaaaqgct
                                                                       240
gaagaacctt aagcctactc acttggacct gctgttgatg agtgcctggg atgctgagtt
                                                                       300
      <210> 829
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 829
ggtaagtaac ctgtgcagag cacagaacta ggattcagac ctacagaccc acaagtcagc
                                                                        60
ctctaaggcc cacttataac tgctcttctg cttgcaaggc cctatggatg aaatccagtt
                                                                       120
ataacctcct tttgctataa ctagacacag agggaggcgt ttctccctaa tctgtattta
                                                                       180
tccagacaag ctgtccagca agatttctga gtgaggggct ttaaggaagc aatctgcggg
                                                                       240
```

```
tqtqtaqcct tttctccctc agcaaataca gaaggagctt atagcccggg ctcaccctgc
                                                                        300
      <210> 830
      <211> 296
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(296)
      <223> n = A, T, C or G
      <400> 830
                                                                        60
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ccegggenen cenngggntn engggntggg ngetnnacen tnecececte agggntatnt
                                                                       120
ttncctntnc ccttncctnc ccgncnanan ntttnccngg ggngggcnaa aaaaaaagtn
                                                                       180
aaaagaaaag aaaaaaaaa aagaaacaaa ccacctctac atattatgga aagaaaatat
                                                                       240
ttttgtcgat tcttattctt ttataattat gcgggaagaa gtagacacat taaacg
                                                                       296
      <210> 831
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 831
gtgggctctc ccttaaagac acatggccac agacacctcc ttcggatatg taatatgcct
                                                                        60
teccetgegg cetteegtgg teacageaac agggactget caccecetec agetgggget
                                                                       120
tttctaacaa gcacaqtcag aaatgcgcag gcctggggtt ggggatgaac agaagttgat
                                                                       180
tagtgggcac agaaatacag ttagatagaa ggaatagttc cagcattcga tattacagta
                                                                       240
gggagactgc atttaacaat aattgattgt atatttgaaa acagctagaa gaataagaat
                                                                       300
      <210> 832
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 832
ggcacttgag aagtctaaga gaagctctaa gacgtttaag gaaatgctgc aggacaggga
                                                                        60
atcccaaaat caaaagtcta cagttccgtc aagaaggaga atgtattctt ttgatgatgt
                                                                       120
gctggaggaa ggaaagcgac cccctacaat gactgtgtca gaagcaagtt accagagtga
                                                                       180
gagagtagaa gagaagggag caacttatcc ttcagaaatt cccaaagaag attctaccac
                                                                       240
ttttgcaaaa agagaggacc gtgtaacaac tgaaattcag cttccttctc aaagtcctgt
                                                                       300
      <210> 833
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 833
ctctcaaata gaaatgggag ataagaaata tatctgtgca atattaaatt gaaaaaaaaa
                                                                        60
acccataaaa agtgtcaaag gcaaataatt tgctctagat cacaaaacta gttagcacaa
                                                                       120
ggctaggatt ataaccaggg tctaggaaaa aatcctgaag gtgatttaac tgagtgttag
                                                                       180
gccctgtcaa gccacctgct aaggctcatg gtctttcaga ctagcttcaa cattccaaat
                                                                       240
caggeaatag ctacaacgga aagataattg gacggggaat cctgagatca gagtectagt
                                                                       300
```

<210> 834

```
<211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 834
 cagacaagaa tetteeetge egteetttag tatgtgeagt actggaeetg atggtagagt
                                                                         60
 ttattgtaac acacatgatg aaggagtttc ctatggatct ctatatacgc tgcatccagg
                                                                        120
 tagtacacaa actgetetge taccagaaga agtgtegggt acgeetgeat tacacetgge
                                                                        180
 gggagetetg gteageettg ataaatttge tgaagtteet tatgteaaat gagaetgtae
                                                                        240
 ttttggccaa acacaacatt tttacattag cccttatgat tgtgaaccta tttaatatgt
                                                                        300
       <210> 835
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 835
 agaccattta actctacccc acactttcag tggtgggatg tgaggaagaa agcccatgcc
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aagctaactg aaagcttatt tggctccaat tcggctgatg ttccctcact gcagaatgtc
                                                                        120
ctggaaacca agggtttgca gctcctaaac ctattgcatt aggcacaccc aagaagaaat
                                                                        180
cctgttcgat gcacatgctc cagtttcaat cagcaacaag gtcaaaagtt tcccccact
                                                                        240
ttctgttcca cagtgcgttc cccttgcagc cagacattag gcacagattc atccctattg
                                                                        300
       <210> 836
       <211> 300
       <212> DNA
      <213> Homo sapiens
      <400> 836
ctcaccaatt agcactgcca ccgcaggtct gtgaattgca tgtgaaaata gaatttgtcc
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agaagtgete atgeaaattg tgeaacacaa atgtggeete catgteaagt cettteaegt
                                                                       120
gttctgacag actcatgtct ttccagattt ctctgatcgg cgcccccac ccccttgaca
                                                                       180
gttaccagag ctcataagcc aaaggaaata gttcctgttg ccatgagtac tgtgtctgtg
                                                                       240
gtgaggttta tgagctgctc ttagggctgg gtttttgcct gagaaaacaa tcagatttcg
                                                                       300
      <210> 837
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (300)
      <223> n = A, T, C or G
      <400> 837
ccaacctgct gtccctcaag ccccgcttct accagcctgt ggagttcagg aggcgagaca
                                                                        60
tectggeete etttgagaac tgatgggate taccecetgt eeacgeggga cagtttetea
                                                                       120
gaactggttc atagaccacc tgtgtcacca acagccagat acctaatccc tgagcctcct
                                                                       180
ttgggaaggt ctggggccga gggtctggga atttttttt tttttttngg nacanagtct
                                                                       240
nnttnngtca ntgcantcca nccngggnaa caaatcgana ntcccntttn aaaaaaaaaa
                                                                       300
      <210> 838
      <211> 300
      <212> DNA
      <213> Homo sapiens
```

```
<400> 838
ctaagcccca aaacgaactt caaactgggt gtggtggcac gtgcctttag tcccagctac
                                                                         60
ccqqqaggct gcggcaagag gattgcttga gcccaggagt tcgagtccaa cctgggcaaa
                                                                        120
agagtgagac cccatctcta aaaccaaaaa ggtaccttag aaggtcacct ggttggctaa
                                                                        180
                                                                        240
ccttttaaag gcaggggcgt gacacgtagg acacattggg aatgtcttgg ctactacatg
                                                                        300
tagcettetg ggatatatgt geecagaggg agaageactg ageetgaaga aactagatga
      <210> 839
      <211> 270
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(270)
      <223> n = A, T, C or G
      <400> 839
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                                                                        60
cgcnangnna aaannnnngn nnnncgaccc caccagctct gtataggcct caaaggggct
                                                                       120
gggagtgggc tgcccctcgg gtaggtgagc ttggcaacgt gtcttcaggt tggagagagt
                                                                       180
ggataggcaa atgccataaa gcacatttcc agttcctgtg aaactcctct ctccgcaaaa
                                                                       240
agtggagaac aatttgagga ctgaaataag
                                                                       270
      <210> 840
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 840
qccacttqac acaqtqagtq qcctcttaaa tctctcgtta ctctaccatg tctggctgtg
                                                                        60
tggtgtcttt ctcctgacga cttggtatgt ctcatggata ctcttcaaaa tctatgccac
                                                                       120
agaggeteat gtgttteetg tteaaceace atttgeagaa gggteagatg agtgeettee
                                                                       180
aaaagtgtta aatagcaatc ctcccccat cataaagtat ttagccttgc aggacctgat
                                                                       240
gttgctttct caatattctc cttcacgaag acaagaagtt ttcagcctca gccaaccagg
                                                                       300
      <210> 841
      <211> 277
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(277)
      <223> n = A, T, C or G
      <400> 841
gttctcaggc cttccagqta gtccccttcc tggacttaag agtgcaaact cttctctgtg
                                                                        60
gttctagcct tgggcagaat tatatcccag agaccacaga gcaactgtca agctgcttac
                                                                       120
cccctcaccc agggetacag cctgtgccca gccctctaat ttgtgcctct cttgtgttgg
                                                                       180
gggaggatga gggaggtttc nttncctttc ctgcnntggn ctnctanaaa gntcanagna
                                                                       240
cccantgnaa ganancttta angnncagca tttagtg
                                                                       277
      <210> 842
      <211> 300
```

197

<212> DNA

```
<213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A,T,C or G
      <400> 842
gagaceteta acetecegea gttgageaaa tacaetetga gagacattag ggaetgtgge
                                                                      60
aaaaagcagg caatccatgt gtgtcactta agccttgagc acagttcagt aggcaacaaa
                                                                     120
ccaggaactg tcctggcaga taagacagac tgtgcaaggt catcgtcatc ggcatgggaa
                                                                     180
gggcattaat taccaaagtg gagacacagg cactgtctcc aanagcattn cnaatccttc
                                                                     240
acagagtnen caaggngggg gaageetate nnneagetee negegggace ggetgeecea
                                                                     300
      <210> 843
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 843
cgaggccagt tccaggccca ctttttgccc tgtgagcccc ctgcatttct ggtttctcct
                                                                      60
tttccaggca gctactcggt ggagcttctc tatttaacat ctagttgtgt attcatqtct
                                                                     120
tttgttgttt ctttcagtga tgttgcttat ttccccaatg acactgttgg gagcttctta
                                                                     180
agaacaggct gtctagggac aaggatgtga agtggtacaa gggaaaagta ggccqtttag
                                                                     240
gacctgtggg tgtgtcatga ctgtgcttgt atctcttgtt agctttgtgg ccttaggttc
                                                                     300
      <210> 844
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 844
actgaatggg ctgtatctgg ggaatcaagg tattagggtt gagcaaaagc aagaggaagt
                                                                     60
agagcatttg atctcttttc ctttgattag gttgaggaca ataaagtctc attctctccc
                                                                    120
ttcttcccat gggcagcctt atatatgatt gaagaacatt agtgcaaaga ttcctcatcc
                                                                    180
agaaataaac tettgtaett etataetaat taaagattea tgtaaattae taagttettg
                                                                    240
gaaaactatg gagaactctg tgggggctgt cattcacact ttagtatgaa ttggtttaat
                                                                    300
      <210> 845
      <211> 291
      <212> DNA
      <213> Homo sapiens
      <400> 845
actgagtctg ggggcactga gtcagagcca gctccgcctg cccaccatga ctgggtggct
                                                                     60
cttatacaca tgtactcttc ccatctccag gtcccagatg tcgaggcctg tccactctcc
                                                                    120
ttttccccta ggcagggatg gaggggcgtg tcagtcctgt ataatttgga gtgactggag
                                                                    180
gggtgggggt attgatgcat ggtattccag taaacttctc tgcttgtgtc ctaaaaaaaa
                                                                    240
291
     <210> 846
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 846
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attgaaaaag agagttcatg taaagccqat tattatttaa tctaaagtta tgttcacata
                                                                         60
qqaagcacta gtgtagagaa atagggtctg agggacaagg agcctgtgtg cccgtgtcgg
                                                                        120
cageegagta actgecaagg gteecetget tggcactetg etgteecaet tgetteetge
                                                                        180
cctctctgga ttctaacact tgtgccattg tgcatccgtc tcaggtcatg gtgctgttac
                                                                        240
ttggtgagaa agcattattt aaatacccca gatgaggagt taggcacttt ctccagtttt
                                                                        300
      <210> 847
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 847
cacctaacat taggtggcac ttaatagtga tgataatcac ttatggagtc tactaagatg
                                                                         60
tttgtgaatc ccttctccca ttcaaaaatc ttgacaaccc tgtgagacag atatgctcac
                                                                        120
cttactgatg agtacggggg cttggcaaag taggtatgtt gttcatatta cacagctagt
                                                                        180
aagtggaaga gtcaatatca tatactccca gattcagaac tttaaataac cccatgctac
                                                                        240
cttctaggga aagcttctgc tatgtgtttg gagggttagg tgagagaaag gtgaatttta
                                                                        300
      <210> 848
      <211> 181
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(181)
      \langle 223 \rangle n = A,T,C or G
      <400> 848
ccggagcaga gagcgcagga gccgcggtac cccggcttcg tgctggggct ggatgtgggc
                                                                         60
agttntgnga teegetgnea entetatgae egggeggege gggtetgeng etneagegtg
                                                                        120
cannatggnc anaatanttn nccttatctt tnntgnctng aanntnnntc tgnngtnctn
                                                                        180
                                                                        181
      <210> 849
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 849
                                                                         60
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gcctgtgctt ccacagatgg gggtgctgct gcaacaaggc tttcaatgtg cccatcttag
                                                                        120
gtgggagaag ctagatcctg tgcagcagcc tggtaagtcc tgaggaggtt ccattgctct
                                                                        180
tectgetget gteetttget teteaaeggt ggetegetet acagtetaga geacatgeag
                                                                        240
ctaacttgtg cctctgctta tgcatgaggg ttaaattaac aaccataacc ttcatttgaa
                                                                        300
      <210> 850
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 850
                                                                        60
cagagatgag tcagaacagt ctcctcaatc ctgaaattca acaaggcatc agaagggctg
gctgtggtca agcccagctg ctgtcatgtg aggagatgct cactgtggtc ttgttgagct
                                                                       120
gatggccttg gttgagctga tggacaagtg aaggaggcca tggggctgtg ctgtccttcc
                                                                       180
tgccgtacgt gccattccac tctcttcagc tctcccctca acagcatgcg agcccatacc
                                                                       240
```

```
ttctgcattt ttccaggcct gtgagggata taggcctccc cttggagcac tgagtccgga
                                                                        300
      <210> 851
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 851
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                                                                         60
gggatcagga gggggattac cctgatgcct gctgcctgct cccatttgat ccacccacac
                                                                        120
agcctctcga ggtaggggct tggcaccccg ttgtccagct gtgtgtggcc tttctgaatg
                                                                        180
acgtggttet tgggcatetg agccagtege cagecatgtg ceetgeecea caggecetgg
                                                                        240
gagttcctgg taggatccca cagctgttgg caagtctgag gtttgccttt gcagatggaa
                                                                        300
      <210> 852
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 852
gcctccctgg aggattctgg atgattctgg gagcaggtcc tggactctac gtgcttcagt
                                                                        60
gggaatetgg acaegittet tateetitgg geeteagitt eeteatetgi agaatgggaa
                                                                       120
tgacaacagt acctacctca tggggttaag gctcaggcca gttaacaccc taaggagcga
                                                                       180
tgccttggat gtcgtaaatg ctagaaaagc atgagttgtt atgaataggt cctggtgccc
                                                                       240
cccaccttcc ttccacaaac caagacaacc aaggagccac acctgccacc tggctttgct
                                                                       300
      <210> 853
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 853
acaagaggag gcttatcggg aggaacagct gattaaccgg ctgatgcggc agtcccagca
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ggagcgcagg attgccgtgc agctcatgca tgttcggcat gaaaaggaag ttttatggca
                                                                       120
aaacagaatt ttcagagaaa aacaacatga ggaaagacga cttaaagatt tccaggatgc
                                                                       180
tcttgatcga gaagcggctt tggcaaaaca agccaagatt gactttgaag aacaattcct
                                                                       240
taaagaaaag agatttcatg atcagattgc tgtggaaaga gctcaagctc gttatgaaaa
                                                                       300
      <210> 854
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 854
aatgtatttt ttcagtaagc acccagaggc ctccattcag gctgtttttt cagatgccca
                                                                        60
aatgcatatt tgggcattag aaggtctgtc gcacttagta gcagcatcat ttacagagga
                                                                       120
tagatttgga gttgtccaga cgacactacc agctatcctt aatactttgt tgacactgca
                                                                       180
agaggcagtc gacaagtact ttaagcttcc tcatgcttcc agtaaaccac cccggatttc
                                                                       240
aggaageett gtggacaett catataaaac attaagattt gcattcagag catcactgaa
                                                                       300
      <210> 855
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 855
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cttttttaag caaagcagtt tctagttaat qtagcatctt ggactttggg gcgtcattct
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taagettgtt gtgeeeggta accatggtee tettgetetg attaaceett eetteaatgg
                                                                        120
gettetteac ccagacacca aggtatgaga tggccctgcc aagtgtcggc ctctcctgtt
                                                                        180
aaacaaaaac attctaaagc cattgttctt gcttcatgga caagaggcag ccggagagag
                                                                        240
tgccagggtg ccctggtctg agctggcatc cccatgtctt ctgtgtccga gggcagcatg
                                                                        300
      <210> 856
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 856
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accacageca gagagegagt geoegecaca aagaeggtge atetgeagte aegggegegg
                                                                       120
tacaccagcg agatgcggag tgagctacta ggcacggact ctgcaggtga gtcaccatga
                                                                       180
acacaacagg acttgagggc cagetgacta ggacaagaca tgtatcettg ctgccceggg
                                                                       240
gcctccatgc cgagactcca tgccctgact ccaacaggag catcaccaaa ctacacctgg
                                                                       300
      <210> 857
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 857
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                                                                        60
tgggggagtg ggtgttccag gaagggctct ggcatgtaaa gctgcacaga agtcaaatca
                                                                       120
gataaagcct gagagggatc catgggattt cttggcaaag ggattgttgg tgataccagg
                                                                       180
aagagcagct tcagtggctc atggggagag aagccagatt acaggagatc agcaactgag
                                                                       240
agagtgagtg gagagcatct tttaagaatg tettgagtge gggeeggetg eggtggetea
                                                                       300
      <210> 858
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 858
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                                                                        60
ctggaaggat caaatctgat acacacaggc aggtgtgttc aaagtgtcct gggggtgctg
                                                                       120
atggaagaaa gtgggagtgt ctgccatggg ctgggtcagt taacacccgg ggtcggcagg
                                                                       180
ctgatgggtc aggagagact gagtctacct cccctttggg agggatcaga aaaatcagag
                                                                       240
aaggggaget gaaggeteea cageaggggg etgtggaete aggetgaagg acetetgagt
                                                                       300
      <210> 859
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 859
cacttgtcag gggagagggg acagcaaggt gggaggttga agagctttga ggctcagcag
                                                                        60
catgtttgtg gcattcggtg gacaccatgg ccttgggcgg ctggacaggt ttttgtgatg
                                                                       120
tgagggacac gcatggggca catggtaagc ttggcaaggg ctccaggaac gctgacgaag
                                                                       180
ggtttttagga ccccacccc catgcctgta ccagggctgg cctccagagc gggtgaggac
                                                                       240
agagcagetg tgggetttte attetgaggt ettggeecce etggeeaceg caagggaete
                                                                       300
      <210> 860
      <211> 300
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201

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<212> DNA
      <213> Homo sapiens
      <400> 860
tttcagcttt cgttaccagc aggagctgga ggaggaaatc aaggaattat atgagaactt
                                                                         60
ctgcaagcac aatggtagca agaacgtctt cagcaccttc cgaacccctg cagtgctgtt
                                                                       120
cacgggcatt gtagctttgt acatagcctc aggcctcact ggcttcatag gtcttgaggt
                                                                       180
tgtageceag ttgttcaact gtatggttgg actactgtta atageactee teacetgggg
                                                                       240
ctacatcagg tattctggtc aatatcgtga gctgggcgga gctattgatt ttggtgccgc
                                                                       300
      <210> 861
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 861
ctcggacctt atcagcagca tcacgcagga ctaccacctg gatgagcagg atgctgaggg
                                                                        60
cegectggta egeggeatea ttegeattag taccegaaag ageegtgete geceacagae
                                                                       120
cteggagggt egttcaacte gggetgetge cecaaceget getgeeeetg acagtggeea
                                                                       180
tgagaccatg gtgggctcag gtctcagcca ggatgagctg acagtgcaga tctcccagga
                                                                       240
gacgactgca gatgccatcg cccggaagct gaggccttat ggagctccag ggtacccagc
                                                                       300
      <210> 862
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 862
ataacetegg etgtttacag tgaggeeegg agegtettgg etgeegeeet geteeaegea
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gtctgcttca gtgcagtgaa ggaaccgtgg agcatgcaac acatcccggc actgttttcg
                                                                       120
geettetgtg geetettggt egeeetttet taccatetga geegteagag eagtgaceca
                                                                       180
tetgtactca tgteetteat ecaatgeagg etgttteeta aatttttaca teaaaatetg
                                                                       240
gcagagtcag ctgctgaccc tctccccaag aagatgaaag attcagtgac ggatgtctta
                                                                       300
      <210> 863
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 863
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agccaaccaa ccgtaggaga acctcgaagg catcttggag gtccctgtct ctgccaggca
                                                                       120
ctccctccct gtcttctcag caccctgctg gcatcacaag gaaatgtggg ccaaagaccc
                                                                       180
tcatcccaca ctaagaatgg tccaacagaa accagcctgg tcccaggtgg ggctcaggct
                                                                       240
caggccacgt gccaccaagt catctatgtg aatatagtga taaaaatgcc caacgttgac
                                                                      300
      <210> 864
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 864
ataacgcccg tggtgcccca tccctatagg agctggtgag attgcagcct gctgcctccc
                                                                       60
ctccatcage cacagetatt ggattteeca cecagaatet ttaggtaaat gagateatga
                                                                      120
ttctggaagg aggtggtgta atgaatctca accccggcaa caacctcctt caccagccgc
                                                                      180
cageetggae agaeagetae tecaegtgea atgtttecag tgggtttttt ggaggeeagt
```

240

```
ggcatgaaat tcatcctcag tactggacca agtaccaggt gtgggagtgg ctccagcacc
                                                                        300
      <210> 865
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 865
                                                                        60
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tgaggetgga ggggeceege teeteeteae ettggggaga aggacagegt gaggetagee
                                                                       120
                                                                       180
tgccctacac tgggtggccc cttcccctgg cctgaagttg cagcacctgc aggctaaacc
agcacatgca tgagggctgc tgggccgggg ctttgggagc agccgatgct cctaaaaccc
                                                                       240
tgctctggqt ggactcttgg gatgcagttt gggtctgtgt ctggggctgg cagacaagcc
                                                                       300
      <210> 866
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 866
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                                                                        60
cagacacaat ggttggatca aaatattacc ggcatttcct gcagatcacc ctgtgcgtgt
                                                                       120
gcgagctgta tggctgctgg atgaccttcc tcccagagtg gctcaccaga agccccaacc
                                                                       180
tcaacaccag caactggctg tactgttggc tttacctgtt tttttttaac ggtgtgtggg
                                                                       240
ttctgatccc aggactgcta ctgtggcagt catggctaga actcaagaaa atgcatcaga
                                                                       300
      <210> 867
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 867
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                                                                        60
                                                                       120
acatectgea acetgggggg acatteettt gtaaaacetg ggetggaagt caaageegte
ggttacagag gagactgaca gaggaattcc agaatgtaag gatcatcaaa cctgaagcca
                                                                       180
gcaggaaaga gtcatcagaa gtgtacttct tggccacaca gtaccacgga aggaagggca
                                                                       240
ctgtgaagca gtgaggattt cttgtgccat tttcataatg gtcattagct ccttttaagc
                                                                       300
      <210> 868
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 868
eggetetggg attgggttee ggattgetga gatttteatg eggeaegget gecataeggt
                                                                        60
gattgccagt aggagcctgc cgcgagtgct gacggccgcc aggaagctgg ctggggccac
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eggeeggege tgeeteeete tetetatgga egteegageg eecceagetg teatggeege
                                                                       180
cgtggaccag gctctgaagg agtttggcag aatcgacatt ctcattaact gtgcggccgg
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gaactteetg tgeecegetg gegeettgte etteaaegee tteaagaeeg tgatggaeat
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      <400> 869
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 aaacaggcgt teettetgtg eccagteeta gtatteaaag gaaccetaet gecagtgetg
                                                                       120
 caccattggg aacaacactt gctgtgcagg ctgttccaac agcacactct attgtacaag
                                                                       180
 ccacaaggac ttctttaccc acagagggcc catcaggact ctatagtcca tcaactaatc
                                                                       240
 gaggteetat acagatgaaa attecaattt etgeatttag taettegtet getgeagaae
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 ttgccccacc acccccagcc ccggtcaatg ggtcagtctt tattgcgctg cttcgaagac
                                                                      120
 ctgccccatt tgcaagcagc ctgttcatcg gggtcctggg gacgaagacc aagaggaaga
                                                                      180
 aactcaaggg caagaggagg gtgatgaagg ggagccaagg gaccaccctg cctcagaaag
                                                                      240
 gaccccactt ttgggttcta gccccactct tcccacctcc tttggttcct tagccccaac
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gcagccggcg gcgccaggat aagctgtggt tctgctgcct ganccccanc canaagctnn
                                                                     120
tncagtncgg anacntggag gagggeneca geeettetae eetgnagagt ttnteenage
                                                                     180
anctinnetg tggccgactt gaggnntect tntgnenngn ttangattge tnccatnitn
                                                                     240
gggagnatgn cttttnntag ctttttnngg tnctttntna tttnnncttt tt
                                                                     292
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 872
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accttagata cttttggtaa gatcaatttc ttggagaaca atggaggagg ccagtttctt
                                                                     120
teceetgetg aacacateag ttetaaggga tggcaegetg agettgagae caacetgaeg
                                                                     180
ggtaccttct acatgtgcaa agcagtttac agctcctgga tgaaagagca tggaggatct
                                                                     240
atcgtcaata tcattgtccc tactaaagct ggatttccat tagctgtgca ttctggagct
                                                                     300
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      <212> DNA
      <213> Homo sapiens
      <400> 873
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tacaaagatt gccctacaga tgaactgcaa gatgggagga gagctctgga gggtggacat
                                                                     120
180
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gaggtcaatc gcaggatttg ttgccagcat caatgaaggg atgacccgct ggttctcacg
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ctgcatattt caggatagag gacaggagct ggtagatggg ctcagagctg cctgcaagcc
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 874
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aagatatgca cttatttggc cattacccag cacatgacga cttctatctc gtagtgtgca
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gtgcctgtaa ccaggtcgtc aagccacagg ttttccagtc gcactgcggg agaaagcaag
                                                                     180
acaacaggag aaatgaaggc atctccagga gtggaccaga gagcagccaa gccatagaga
                                                                     240
agcatcaggt gtgagaatgg aaaacgcaga agagacgtac aacttctgaa agatctcaga
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 875
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agagctggtt agtcaggcat tccagatagt ggttcttttc agaacctttt taaaagggtt
                                                                     120
ggttaactac ctcagtagca gaggattgaa ctataccctg tctgtactgt acatagaaaa
                                                                     180
240
aaatgtaaca ttcttagttg cctttagttt cagaggcttg taagacttcc tcatgaccat
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 876
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ttagaagatg agtatgacaa agctcattcc ctcagggagt tgagtgtttc agagggatga
                                                                    120
agtaaaagaa gattttaaaa ctacaagtag agtgtaagaa gtatcacgag aaacatcaac
                                                                    180
aaagggctga ggatagaagg tgataagtct caagtatctc aagatattca gcagtgaatc
                                                                    240
ttaacataaa tttgctttta ggggaagaat ttcaagcata ttgataggtc ttaaattttc
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      <210> 877
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 877
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tetgtetegg gatecteagg aattecatea geetegtggg gtteettttt ceetgeteet
                                                                    120
ggaggcaaat tatatgcagc aaaacgtaga actagtcttg tggattttct ttggtggagg
                                                                    180
ageatacace aatggtteea tgtaaagget ceagaateag aactggegte acacettggt
                                                                    240
gtcacccctt cctgctgagc ctgtctcccc aggagtgaaa tgagggtaat attcctccta
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      <210> 878
      <211> 300
      <212> DNA
      <213> Homo sapiens
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                                                                        120
 ttcaacaaga gggttattgt aattcagggt atagcaacaa ttttaatgta agcgagaaga
                                                                        180
 tgtttgtaac acttccaaaa aaatagtact gtatcagtcc agtgtccact ttcctccaaa
                                                                        240
 cettegtgee caegeacaea caeataaata catgeaggat teetgageag ggaaggatee
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       <210> 879
       <211> 300
       <212> DNA
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aaatagaaaa atcccttgag caatgaaaca attgtgaatg aacacaaagt ccatgaattt
                                                                        120
aatccttate cgtttgctga gccaagcatg tgcatctgca gtgggtggcc caggctggca
                                                                        180
gcacagatac caccatttcc cttttctttg ctcagggcat ggcctgttta tctcgttgca
                                                                        240
ccagatgagg gttggaaagg atgatggtgg tggttgtttc agatctactg acagcaatga
                                                                        300
      <210> 880
      <211> 300
       <212> DNA
      <213> Homo sapiens
      <400> 880
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gaagtttaaa taattagaat ctattgtcgt aaactattaa aactggttct ggtcacttcc
                                                                       120
tttgaggtga gtaatagtga gagtgctatt ctttcttacc tcctgggagc ctgaggcacg
                                                                       180
atgcagagaa gaacctcaca tatcatgcat catcagagga ctagagtgaa ctcaggaaat
                                                                       240
atttgctctt gtcacatttt cttcaccgga gctagagact ttttactagg aaaaactgcg
                                                                       300
      <210> 881
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 881
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gcagatagac tgatctcaaa agcctgtcca tttgctgcag caggaataat ggtcggctct
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atctattgga cagctgtgac ttatggagca gtgacagtga tgcaggttgt aggtcataaa
                                                                       180
gaaggtctgg atgttatgga gagagctgat cctttattcc ttttaattgg acttcctact
                                                                       240
attcctgtca tgctgatatt aggcaagatg attcgctggg aggactatgt gcttagactg
                                                                       300
      <210> 882
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 882
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gcacaactet gecaggaaac tgccagatag gagtcaggga tcaggcctag aacgcagact
                                                                       120
gcagaaagga gcagatgtaa aagcagaaat ttaaaacttg cttttccctg tcctcagact
                                                                       180
cttgagggtg gcccattgcg taagaagcag ggagccaaga acattcatac tggcctcctg
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cttagcctta actgaaatag gcccccacgt aggatgtggg cctatgtgaa cttggctgtt
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<210> 883

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tggaccagct tgtggagcca taacccagga gctcagggac attgagtgca ggtttcttac
                                                                    120
                                                                    180
tectacetge tggecetgtg getgteeetg gtggecagee cagetgeage aaaacetaca
aagcetecag ccatggtagg cgtettggae etgececagt cagetgggge ttgggetget
                                                                    240
aggggttttg gcacacgtcc atgtttggcg gagggtgtgc cttcaaaccc tgaagggcct
                                                                    300
      <210> 884
      <211> 300
      <212> DNA
      <213> Homo sapiens
     <400> 884
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gcccacageg tggtcaggaa agagaagtag ccactggtgg ctcctggcat cctcctgctg
                                                                    120
ggcagccct tctcaaagtg tgagggtcc ccttgtgtac aagcaggaag gctctgagaa
                                                                    180
agtcaggttt gctcctacca caggataatt ccgatgaacc tgaaaagcgg gttttggctt
                                                                   240
gtgtgcaggg actctggtgg aagaaagggt gacagcacct ggcctgggca tgacacaagt
                                                                    300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
     <400> 885
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gtggcactgt gtcttcaggg gtgctgccct cttacagaga gacagatctg gaggccatgg
                                                                    120
ccgttttggt gagaaatgcc agaaacagct tcagtttcca cctactgctt catatttata
                                                                    180
atcacagtaa totatttoto gttttgotat ttotagagca acaaattgtg tgatgogaaa
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ttagtaccag aggaacaatg actccactta acaaaaaaat agcatgggat ctatgaaaaa
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     <212> DNA
     <213> Homo sapiens
     <400> 886
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gccactgtga ggcttagctg tgcatctgtg aatgggagat tgttcttaga gattggtcat
                                                                    120
agttgtccac ctgcctcgga aactgcaggt acaaatgcag cagcaaagta tttacattct
                                                                    180
tacttcaggg ctgatctcct atttctatca gtccttttga aggcagagaa tgttaatttg
                                                                    240
                                                                    300
<210> 887
     <211> 206
     <212> DNA
     <213> Homo sapiens
     <400> 887
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attagccatg gatagaaatt gaaggttagt gggtgaaagt tttcagtctt accagtaaaa
                                                                    120
acaagtgaga atgcactgac gtccagggaa aaaaaaacag atggggtcag ctttcattgt
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ttccccattt tacaaaacca aagcca
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      <210> 888
      <211> 300
      <212> DNA
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      <400> 888
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caaagtgtca tcacgaaaag tgttcctcta ggaaggcata atatgtggcc tgatggattt
                                                                       120
gatgagtaga ttgtaaaagg gttgggattc tggcagaaca agaagagata actaattagt
                                                                       180
ggaattaact gagaaaagag ttcattagca tgttggctat tagactctaa taaaaatggg
                                                                       240
tgtgaaaaga tgggatttgg acctagaggc agtcttagag ccataatcct tttttctcc
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      <210> 889
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 889
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                                                                        60
ctgtacacta ccccatcctc ttcctaatag ctaaagtgat ctaccctaaa acaccaagca
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gtccttctta cagtttgttc cctcctgaca gttcattgat tacaatgtga aagcaccaac
                                                                       180
ctgagctaaa atgaaatgag aagcctgatg tttcaggcac caagtacttt aaaaatgtct
                                                                       240
actggctgtc ctgcagcatt ttacttaatc attttttaga ggagggatga ggactggttg
                                                                       300
      <210> 890
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 890
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ggacatcage tgetgtggee agagaagaga acatgaaage ceacateeeg tgeetgeage
                                                                       120
cacccacttt gctgtcactt cccagctgaa gtgaggaggg actgttcaga aacatcgaac
                                                                       180
tgagcaaggt ctctgtctac ctcatggaaa acctgatctg gaaatgacac ttggaataaa
                                                                       240
ataagattac tcttccatta aaaggaaatc cacccaaaag agagaaatag tggtatattt
                                                                       300
      <210> 891
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 891
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ttcggttaaa cttttccata ttcagcttga gatcaacctc ctttacataa ctgattattt
                                                                       120
ttgccttgag gagaaaagat gacgctaaac acagcacaca tgtgtttatt atatgttggt
                                                                      180
aatgtggaat tcaaagatga aagagacgtg agctgcatca ctaaaaaaga aacatattac
                                                                       240
ataaatgcaa tgctgatatc atagataata aaattaacac taattttttg atattatcaa
                                                                      300
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      <212> DNA
     <213> Homo sapiens
     <400> 892
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acqttatgac agattctttg aatqcqctaa tctcaqactg gactaaagtt gggattaaat
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ttaatttgta cttgagttca gtgcattgct gttctgggca taggaaatcc aggttgctgg
                                                                        180
tqatqaacag ctgaaaagag ctgtgtcacc atggttgtct ctgtcagtca tgtgaccacc
                                                                        240
cttacccttg taaaatcaag caagggagag attattttct aatgtaaatg aaaataaaaa
                                                                       300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 893
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ttcttttttt ctcctctgtt ttcccatttt agtagttcaa atggtttttg tattattgaa
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gacaggtatg teteaaatee atggaactea caaaaaagge teatttteta teeteaagga
                                                                       180
                                                                       240
gctttacatc taatggaaaa cacacagtga agtccagaag gactcactgt ggactggtag
caccatgagg gctttccatg aagaaggact taagccagac ttagcagggt gggcaggtgt
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      <210> 894
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      <400> 894
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aaagattgct caggcatggc ctaatagctt ttatcagttc actcagtggc tcttacactt
                                                                       120
tgatacctga aacctagagt taactgtgta ggaccaagct cttctgaagg agtcaactgc
                                                                       180
teteetetgt caataatgge tgtttatgee aaaacageea agagaacete eecaceeeet
                                                                       240
tccctctgtc aaagtgaaat ggaacctaag aatggaagct agtggctatt ttgccatacc
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      <400> 895
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gtaccagege egitectece ggggteggga etgggggetg etceetette tgeageceag
                                                                       120
etcecceage tecetgetet etgetaegee gatecettta eccettgeae eetteaecea
                                                                       180
gctcactgct gccctggtgc aggtattcag ggaagcactg gggtgccata tagaacaggc
                                                                       240
                                                                       300
aaccaagaga acgcggtcag aaggaggtgg aactggggag tcctctcagg gagggacaag
      <210> 896
      <211> 300
      <212> DNA
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      <400> 896
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ttcccagtgt tccctgcatc ctcatctgtg aggccgactt cactatcatt cccacttata
                                                                       120
ggtggaggag actgaggcac agagetecca aageeecaca getggegagt ggeagggeta
                                                                       180
gegtgegatg tecaetagae tggtgtetga egeagaaget gegettetea eeeetgggat
                                                                       240
ctggaagata attctgatgt gtgagatcca ggagaatgca ttgtttagcc agaaaatgtt
                                                                       300
      <210> 897
      <211> 300
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209

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      <400> 897
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                                                                       120
cagttaaagg gcctactttg ccactgctgc ctccttctta atgctgaacc tcatctccca
                                                                       180
caagggggca gtctcagcag gtgtcagctg agccatgtgt catctgtcca qqctaactqc
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ccacacatcc ttctgcaaag ggtacctctt ggttatcagt gctcactqat ccctatataa
                                                                       300
      <210> 898
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      <400> 898
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atttagattc attcctctgt ttgttggagt cattgaagcc agtatatcct ggacattttt
                                                                       120
taaagaggtc cccattctga gaaaagacag gagttgaatg tcttattgat tcttaccttt
                                                                       180
ctgttcgtta tagacgacca gaggaaacaa atgcccgaca cggattcgac tcagtcataa
                                                                       240
gtgtgaacca aataggccga tctgggttct ctcactgact gaagaggaag agaaataaqa
                                                                       300
      <210> 899
      <211> 297
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(297)
      <223> n = A, T, C or G
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nctggnntna aantgngtnt taangnangt gangagnnen taaaattttn ancentgngg
                                                                       120
nnccccccc ttttttttt gcattgtatg tcaaaagcgc ttgttctttc gtgcatgtgt
                                                                      180
aagatttaat ggttccattg tattatttga ccatgacatt ttqqaqaaac attcccaqct
                                                                      240
gtaatgttgt gtatggtagt teteaetgga tgetagagtt tteaaaacca etattet
                                                                      297
      <210> 900
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 900
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aaataaaata taaataaaat atgaaataaa ataaaagcca tggggaaaag gtagggtttg
                                                                      120
attgctaata agaaatttct tggaaaagag actagctctc ttttggtttt ccaaaqtcca
                                                                      180
cattttataa catttttagt gcttggtgtt tgcttgtggt attacattaq ataaaaatqt
                                                                      240
atcacagtgt tggtttatac tggatgttta aataggattc attgaaaggg qtqtqttttc
                                                                      300
      <210> 901
      <211> 300
      <212> DNA
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<213> Homo sapiens

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<400> 901
ctggaaggtt actgcaaaga cagcctggtg aaattgttgg gagtacagag gctttaatgg
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gttctttgag gtcaggtaga ggttatgggg ggagcactac agtgagcata tacccaaaat
                                                                        120
gaagccagac ttccaaggta cgttctcact ggagagggag cttaatggta aagtttaaac
                                                                        180
tttaagggtt taggttttag attaaggccc aggagatcca aggggaagga ggagggtagg
                                                                        240
aaatcagaga taagaggagc tgttgtcatc gcaggtatag taataattaa gatatgttaa
                                                                        300
      <210> 902
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
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      \langle 223 \rangle n = A,T,C or G
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aggttggtga gagaagetee cetgagetea cetgtetete tgactgeett ggagtaggtg
                                                                        120
                                                                        180
gcataacctt gtgcacagag aactagaaaa ggggcagaac cccggccttg cagttgtggc
aggtttccac tgtggtaagc taggttcatt cctcatcaag gaatgtgtag cagattgttc
                                                                        240
                                                                        300
actgtggagg agttaattat agaatgggtt attgttgnta ttcttactca tgaagttaca
      <210> 903
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 903
caaagcttga tctattaata tattgatcag agttccatga tccttttcta aaatggtggc
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tttattttgc cagaataatt ctgcagggtg ttttttttgg gacggagtct cactctgttg
                                                                        120
cccaggatag aatgcagagt ggcacaatct tggctcactg cagctcttgc ctcccagttt
                                                                       180
caggagaatt gtgtgaacct ggaaggegga ggttgeagtg ageegagate aateaceact
                                                                       240
                                                                       300
gcactccagc ctgagcaaca gggcaagact ccatctcaaa aaaatttttt tttggattta
      <210> 904
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 904
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aggettteca tggtgettag gageaggggt ggggttgtta teataaceta ageaaagtta
                                                                       120
caagggtaat ccatatgggg tagcctggtg tagagagtca gggccccagc aacattaagg
                                                                       180
acatecetge aggatggeag ecaggettgg gggtacaaga ceetaaacag gatgatgaga
                                                                       240
gcctccccaa ggagaggtcc caggtataga gtgtcagagc ctgagcagat gaggaaggca
                                                                       300
      <210> 905
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 905
tttgaactcc cttagcaagc tacttgtctt tttgcaggat cccatcggat tgctgtctcc
                                                                        60
tttttcagat attactggat catcagctgt aaaggeteta tgtttaatta tgtctagcat
                                                                       120
```

```
ttgaatggta acagcgcaga tgttacctgc ctataatcct cctcctctct acagattttg
                                                                     180
ctttgttctt gcttcttgtt tttgagatcc tgcacacaag ttgaaattaa ttaaaaacag
                                                                     240
tagagcaact tagtctggat aagccttcat ctggcaaata atgttacact gccagagatt
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      <210> 906
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 906
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catgitigtt tictaacagi tattittaa gcttitgaga taattitaga citacagaag
                                                                     120
agttgtaaaa gtagtagagt tettgtatae tetgeaccea cettgeeett atgttaacat
                                                                     180
cttacgtaac aatagaacat ttgtcaaaat taagaaatta accttgatat aatactaact
                                                                     240
aaagtagaaa gtttaaaaag tagagatttt agtcttttca ctaatgtcct tttactgttc
                                                                     300
      <210> 907
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 907
ggctattaaa aatgtaatca gtgtgaaaat tcatgccatc tgaatcgtac gagtatgtaa
                                                                     60
gggatttgag ttccttacag aattttctgt aatttagtac ttcaagtgac ttataaatgt
                                                                    120
atatacttct ctctcacaaa agtgttagga gaaggaaaat cttaaatact agcttgattt
                                                                    180
cttaatttaa taacaaaaaa caattctcat aacatgtatc acctaacatg tcactttcac
                                                                    240
300
      <210> 908
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 908
tcaccatgtt gcccaggcta gtcttgaact cctgggctcg aatgatcctc ccaccttggc
                                                                     60
ctcccaaagt gctgggatta taggcgtaag ccactgtgtc tggcctagtg tatgattatg
                                                                    120
catgagtcac gcaatgttct ggtcctggat tccaggagta gaggacctag ctttaaatca
                                                                    180
attagtttca gctaaactga ctagaaccag gtcaaagtgt aattctccct ccagctcccc
                                                                    240
caaaactaga gttgggggga actggaggga gcaaaacact gatttgatac tagtcagttt
                                                                    300
      <210> 909
      <211> 147
      <212> DNA
     <213> Homo sapiens
      <400> 909
gtcttcctgt gcagggtgct ttggtagcca tcagagagga accaagggca acatcttttc
                                                                     60
tteccaggeg ttettetetg ggtgetttat tetettett ttetttattt egececeaee
                                                                    120
cccatcccct gccttttttt tttttt
                                                                    147
     <210> 910
     <211> 274
     <212> DNA
     <213> Homo sapiens
     <220>
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<221> misc_feature
      <222> (1)...(274)
      <223> n = A, T, C or G
      <400> 910
ccaacttgga tgaaggccag cgcagagccc aaactttgtg aatcagtaac acgtgtatgg
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                                                                        120
aacattcact tacatgcaca qaqqtqccaa gggacagcct aatttaagat tcatataaac
                                                                        180
acatttatct qqcaacataa qttaatattg tggtaggagt cccaccaagt taaaattcta
                                                                        240
aaqtqtttqa atatqqqcat ttttaaaqaa aqaatctqca taccataaat tcacqctttt
aagtgtatga ntcannggna anantggatn nnca
                                                                        274
      <210> 911
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 911
aacagataga gacttggtct taaaaaaaaa ggaaaagaaa aggaaacaaa aaattatctg
                                                                        60
                                                                        120
qqcctaaaqg tqtgtgcctg tgctcccagc tacttgggag gctgaggtgg gaggatggct
tgagccctgg aggttgaggc tgcagtgagc catgattgtg ccactgcgct ccagcctggg
                                                                       180
tgagagagca agactctgtc tttaataata ataataataa taataaagtg gtcaggaagg
                                                                       240
gacccccagg gaggagcata aacctctcca gtggctgtga tttgtcagta aggacatggg
                                                                       300
      <210> 912
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 912
                                                                        60
quaactecte tecaatgage tacteetgae acaaatggag aagtgtgeee teatggaage
cctqqttctc attaqcaacc aatttaaqaa ctacqaqcgt cagaaggtgt tcctagagga
                                                                       120
                                                                       180
getgatggca ceagtggcea geatetgget tteteaagae atgeacagag tgetgteaga
                                                                       240
tqttqatqct ttcattqcqt atqtqqqtac agatcagaag agctgtgacc caggcctgga
ggatccgtgt ggcttaaacc gtgcacgaat gagcttttgt gtatacagca ttctgggtgt
                                                                       300
      <210> 913
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 913
cagaatccct ttttcctttt tttgttaaaa gtactcatcc ctaatattac attgttctgg
                                                                        60
aaggactgaa aataacagaa ctcagcacca tgatcggacc gggacaatca gattatttca
                                                                       120
                                                                       180
ttcctcagca aacggagatc gatccgaaaa gtggaaatat gagctcttct ttggtgttgg
catatggacc ctgagagaaa gaactttaat tttttctctt ggactgcaat aaagtatagc
                                                                       240
                                                                       300
tgcctaaaat acgtttcctg acacttggag gtttgtccac aatcgggaaa taaaggcaag
      <210> 914
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C \text{ or } G
```

```
<400> 914
cctaaacaga atcccttttt cctttttttg ttaaaagtac tcatccctaa tattacattg
                                                                        60
ttctggaagg actgaaaata acagaactca gcaccatgat cggaccggga caatcagatt
                                                                       120
atttcattcc tcagcaaacg gagatcgatc cgaaaagtgg aaatatgagc tcttctttgg
                                                                       180
tgttggcata tggaccctga gagaaagnac tttaattttt tctcttggac tgcaataaag
                                                                       240
tatagetgee taaaataegt tteetgacae ttggaggttt gteeacaate gggaaataaa
                                                                       300
      <210> 915
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 915
ggcaaatagc cctaggagtc ccatttttt aagctgaggg aaataatttt caagaagctt
                                                                        60
gtettactag tagcateatt etttttact ggeteacage ttggaagggg tgatggtttt
                                                                       120
tectatgaaa getaacaaca tttgagcaga tecagtgtge tggtgagtea cagtgaaaqt
                                                                       180
gtggagtgct aaggaagcct cctggtggaa atgtaagttc agagaaggtc tgcagaaaat
                                                                       240
acagggtgaa atgttatcaa ggagccaggg tattatttaa gaagaggagg gaggggaaaa
                                                                       300
      <210> 916
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 916
tccaagagga gaagcatgtt ccaaaaccct taactttggg aatttagaac tagcttttt
                                                                        60
actatettet geacageata actteagtet ecetttaeta atteaaggaa ateteagtga
                                                                       120
acaaattgta taagggtaga tgagctaaaa gctcactgag tcattaattt gtcataactc
                                                                       180
atctaaatac aatgattagg cttgtgtagg tgtccctagt ttctctttct aaatcatgtc
                                                                       240
ttagtaggga cagagcaata atggtggatc gtggcaacgg gaaggaagat gatgtgtcag
                                                                       300
      <210> 917
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 917
tgttgctgca ttctaagctt aacctcctgg tctcatggca gtgacttgag cttttgattc
                                                                        60
atagaagaaa gccagaggtt ctgcttgttc ttgtctgcca gccctcgtcg ttctttctcc
                                                                       120
tctgcctctc acctctaccc caaatacctc tgttcttagt ctcaagggga gaataacatc
                                                                       180
agggagecec teatetteec cagaaggaet tetegtteet catgtagtta acteeattga
                                                                       240
ttttcctatc ttggtgctga tagctctcta agggtagggc acacctcccc acagccaccc
                                                                       300
      <210> 918
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 918
caggaacgca acaaactcaa gtcgcagctc ctggtggtgc aggaagagct gcagtgctac
                                                                       60
aagagtggcc tgattccacc aagagaaggc ccaggaggaa gaagagaaaa agatgctgtg
                                                                      120
gttactagtg ccaaaaatgc tggcaggaac aaggaggaga agacaatcat aaaaaagctg
                                                                      180
ttctttttc gatcggggaa acagacctag atccaaggcc acaagtaagg ctatggctct
                                                                      240
gattetagaa gacaacette caagatgeet ggcaaaacea cetecetgtg ccacacagae
                                                                      300
```

<210> 919

```
<211> 136
      <212> DNA
      <213> Homo sapiens
      <400> 919
gtaagggagg gggtagggct gggttattaa gatacaggct gctgtatttt acattggttg
                                                                        60
tgggggaagg ggagcctgga gaaaacaaag tcactattcc cttttttgaa acaggaaaaa
                                                                       120
                                                                       136
aaatattttt tgttca
      <210> 920
      <211> 135
      <212> DNA
      <213> Homo sapiens
      <400> 920
cagactegea ttatggacaa gteeettete eecacacaaa ggaagacata cacegeatag
                                                                        60
tocatttcat ttcagctcct gatggcatct gaccgccgtg gacacttccc agtggtctgg
                                                                       120
                                                                       135
cttttggagg gagag
      <210> 921
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 921
                                                                        60
aagcagaaat gtgggtggtg tgactggggt ttggtgaggg gctgctgtgg ctggaatgga
gggctgccac aataatggaa atggtaaatg aggcaagtaa ggttggactg gtggcatagc
                                                                       120
gtcaaggttg ccagctttat taaatcactc ttccaatatg ctagcactgg cctgttggga
                                                                       180
                                                                       240
aaagtaatac atcatgtaat cgaacaaaag acagaggcaa gctccaggaa tgggcactgt
aaacaggact tgtcccagag tagccagatg taggctttag gtaagttgat gcaagctgag
                                                                       300
      <210> 922
      <211> 280
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(280)
      <223> n = A, T, C or G
      <400> 922
tetegatete etgacetegt gateegeeg ceteggeete eeggggtget gggattaeag
                                                                        60
gggtgagcca ccgcgctggg cctggatcaa atctttatcc atgcacattg gaacacagga
                                                                       120
ttactgggtt gaaatcattc tagttttgtc atttagatac ttgtacgatg aatctatttt
                                                                       180
agcacaaggg ataaataact cgnnangnca tctntanntt gtntnntttn gtgnntttgn
                                                                       240
ntanaccacn ttcangntcn angnnaactt tncttnggat
                                                                       280
      <210> 923
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 923
ggaaagggga cagagcagag ccagttgttc cacactttgg gaagcaggag tagcttttat
                                                                        60
catcttcctc tggggagcag gcatagagac ataaactgag tgaaaatggg tggaggaaga
                                                                       120
```

```
acttctatac ccacgaacaa catgtgaaga gagagaacca aacataaagt aaggagggtg
                                                                        180
 agttttattg tatgttgctt gctgacaact gttttggggg cgcttcagtg atatacattc
                                                                        240
atagaaagac tttgttttat ggcagattag tttacaaaga gtattctgca agtgggatta
                                                                        300
       <210> 924
       <211> 300
       <212> DNA
       <213> Homo sapiens
      <400> 924
ctcaaaacca aatctcaact cagctacaga atctactgtg gtccttgtct gaaaaaatta
                                                                         60
gttcactcgg ttggaatctt gtctcagagc atcctcatct ctttctcaaa agcccctacc
                                                                        120
ccaacaccgg cgtgttggtt gtctattgaa acttacaagt ggatggaccc tttctcccga
                                                                        180
ataaactggc ctttgaaagc tctaatcgaa atggtttggc aaaatccata ctgcaggaga
                                                                        240
ttagggagga caagaatgat gtgccttttt gtactgctga gcctgatggt ggtgccacta
                                                                       300
      <210> 925
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 925
ggaaacagct ggactagaga tacacatttg ggcatatata tatatata tatacagtat
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atatatgcac gctgatttta tatatata tatatataaa ataattatgg aagtcagtga
                                                                       120
gattgtccag ggcaagaata taatgtcata tgagagggga gtccagactc tcaaggaacg
                                                                       180
cggacattta aggggagagt ataataggat gggccgtcaa agtctaagtc agagcatcct
                                                                       240
gatgttggag gcaaagcagg agagtgtgga ttaagcagct agacattggt tactggggca
                                                                       300
      <210> 926
      <211> 295
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(295)
      <223> n = A,T,C or G
      <400> 926
atttcagcct gggcaacata gtgagactcc cgtccctaaa aaaaaaaaat cccacaatcc
                                                                        60
tatcacacag agatggcaac acttaccatt tgttctggtc acctttggaa ggaactttta
                                                                       120
aatcaatgtc ttgcttctct gtgggttctt ttgtgactca cacctgcttc tgggtatagt
                                                                       180
atgactataa agttgatttc ttgggtaagg tatgatctat gagaggaagc ttctaatttg
                                                                       240
atgagcatca gggnantttt anctggtata ccttttnttt gccctctcca atcaa
                                                                       295
      <210> 927
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 927
gtggtagcag gcactagata agaggtgaac cagtgtggag gcaggagggg taggaaagga
                                                                       60
gatggaggca ttattaccaa ggcatgatag aagccatggg atctgataag tggtgagaac
                                                                      120
tggaaagaga gggacaactc tgaaatttgc ctctgattgc agttaaatga tagcatgcta
                                                                      180
atgacagagg tagcagtagg ttggggagag tgtagtagta tttctgtttt cagtacactg
                                                                      240
ggttttaagc attgacaagc caccaaatgc aaatatcaag caaagagtgg cacatctagg
                                                                      300
```

```
<210> 928
       <211> 300
       <212> DNA
      <213> Homo sapiens
       <400> 928
                                                                         60
gcgatttatt tcacagagtt aaggggccag tacacttcat ggtataaaat tatctttttc
aggggatgaa ggcacaagga gaaaattact tgaagcttgg agatcttctc tggcaagcaa
                                                                        120
tttacaaatt ctggtgttct ttgatctggc tccccgccca gacaaccagg gagttcttca
                                                                        180
tgttctagcc tcatgtgttg cactataggc agtaatttgg catcagccat agaggaggga
                                                                        240
teegatagtt gteattgetg eeegeeacat ataeteeaca tggaatgata eteataatge
                                                                        300
      <210> 929
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 929
gggacactgg attotoatto tactoaaact cocactagga ctgttggctt gttcgcttct
                                                                         60
caagtgtttg tatttttctg agttaatatt tttgggtgta atttacatgt aggaaaatgt
                                                                        120
acacattttt agtgtacagt tcaccaagct ttggcaagca tgtatagcct ggtaacccac
                                                                        180
aagccaatgg agacctagaa cattcccgtg accccagatg ctgggttctg tgtgccttcc
                                                                        240
cagggettgt ggetgggcac atcaggcatg gegggtacca tgeetgacag etetgaacca
                                                                        300
      <210> 930
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 930
gaatgggtag gaacaagcat tagcctggtc tgggttcctc cagctcttag gacaagttgg
                                                                         60
aacagatttg ctgttctgat gattcatctt tctgatcaca gggatagcag aactcagctt
                                                                       120
tgaagaaagg catctgcaga gatcatggca gttccatttt gcgttctgag tttgctcctt
                                                                        180
taggtaaggg aactagaatg cagatacagt tagaatcagt ctctctctct ctgtttgtct
                                                                        240
gtotgtotgt cactototot otcottattg cactgagggc cgggcgcggt ggttcacacc
                                                                        300
      <210> 931
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 931
gtcatgagaa gagccccaga tgggacaccc gttcttcctt gtgacattag ggaatttggt
                                                                        60
acagetttet ggateagttt ttgeetttaa gatgeatetg gaeteateaa acceagaaag
                                                                       120
tgtagagcaa atattcctat tcccatgtcc ttggcagaca ttgctaatct atctcagggc
                                                                       180
                                                                       240
tecaacagag ttgggtetea geettaceag eetggeagee actagaettg atecetgaga
tgaaacctct tgaccacaca ggaactccat gatcttgaag ctcccttctg gctctataac
                                                                       300
      <210> 932
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 932
ccaacatggt ggtctcaaac tccccacctc aggtaatcca cctgcctcag cctccaaaag
                                                                        60
ttctgggatt gcaggagtaa gccaccacac ccgtcctcag tgcctggact tctgcagtgg
                                                                       120
```

```
actteettta aaaateetgg aatatacaet geagtaaaag aacaaageat actteagteg
                                                                      180
tttaaggctg aggtatgctt tgttctttta ctgcagtgta tattccagcc ttaaacgact
                                                                      240
gaagaagaat gtcaagtggg gaagtggctt tggttttcag tttgtgggtt ctgaatccac
                                                                      300
      <210> 933
      <211> 264
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(264)
      \langle 223 \rangle n = A,T,C or G
      <400> 933
ctgaagcagt gcaagtacta ccatggtctg agctccctgc cctgaagagg tcggtgcaga
                                                                      60
ctcgggggcc agtcctgcac ccacctctac ccctcgccga cagccagacc acaacaccag
                                                                     120
attgtaccca gatagctggg attggaagtg aggaggtttc tcaccccaca gataacccaa
                                                                     180
240
ngccnttnaa anttntgggg ggnc
                                                                     264
      <210> 934
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 934
gatgtcctgc tatacaccat ccactgccct gccccttaag cctcacatct ttcatctctc
                                                                      60
ctagttccaa cccatggtct ccagacgatg actctgcctc cctgttctgg tagcattcac
                                                                     120
agattgeett gtttagtage ettteacatg agatecaett gacageeect gteeteacee
                                                                     180
ctcctcaaac tcctcaccac actgaaactc ttccagctcc atgagtaggt tcttgggtgg
                                                                     240
tttcttcacc tgcaggttca ggtcaatgct cagccgggga ctcgacaggg atgctttgca
                                                                     300
      <210> 935
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 935
accaaagetg etggageetg aggeagagaa ceagaggeeg gaggeagaet geetetttae
                                                                      60
agccaggaat ctcagaggat ttgaaaaagg tgaaggacag gatgggcatt gacagtagtg
                                                                     120
ataaagtgga cttcttcatc ctcctggaca acgtggctgc cgagcaggca cacaacctcc
                                                                     180
caagetgeee catgetgaag agatttgeae ggatgatega acagagaget gtggacacat
                                                                     240
ccttgtacat actgcccaag gaagacaggg aaagtcttca gatggcaagt aggcccattc
                                                                     300
      <210> 936
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 936
gagccatggc agaaaatcag tgatgtcatt gaggactctg tagttgaaga ttataattca
                                                                      60
gtggataaaa ctaccacagt ttctgtgagc cagcagccag tctcggctcc agtgcccatc
                                                                     120
gctgcccatg cttctgttgc tgggcacctc tctacatcca ccaccgttag tagcagcggg
                                                                     180
gcacagaaca gcgacagtac aaagaagact cttgtcacac taattgccaa caacaatgct
                                                                    240
ggcaatcett tggtccagca aggtggacag ccactcatcc tgacccagaa tccagcccca
                                                                     300
```

```
<210> 937
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 937
tettetagga atgaggggea teageceace ceaggeacet cagtggggtt cegggecace
                                                                      60
teaggactee aagaggetgt gtggageeae cacteetage cacagetgee atgataagte
                                                                     120
ettecatgaa ggaetgagga gggagagtgg gggtecaggg etggtgetge tettecetea
                                                                     180
gctctgccgg ggctctaagg tccctctatt tatttctcaa ccctggctgg cctctcacca
                                                                     240
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gcacgcacat agcatggcgc ctcctttttt gggggactct ccttggtggc atctctggca
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gegetgetgt ceegegtgeg gaacaageee tatgaegtgt ttggetgttg geteaeegag
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accageetea teteggggaa cetgeacege ateggagata teaceteetg eteggtgetg
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cctcccacac ttggagggtt ctactagtgt gcctgcgtgg ctgggttctg cacactcagc
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tactttagtt tetttagtet ateettaaaa agatteetag gtgtgtteet gattttgagg
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cagggaggag agcctaggag agcggtaggg ctcatgggca ggccgttggt gtacgccttg
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geoetgeetg teeccagtee caccactgtg gaetecagge cateetcagt ccaggtggte
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accacctacc tgtgtttgca agttccatga ggaagggccc atgcctcctc ctgcttatca
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cagtgtgtcc aaatcagtgc ctggttcagg gcctgtgtgt atgggacatc tcctaggcac
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gegtggeett geeectetee egetggeage teeteagggg aacagggget accagagget
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gatttetece ctetectggg ccaggggagg ggtattatee etgeetectg cccccgatge
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ccaaagcagc atcttccagc actttccatc gaggacttgg gtggcagagt gtgggtgcag
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gagaagccag agattattga tgagctgctg aatatagaga aaaatcccca aaagcctcaa
                                                                       180
tatagtatgg ctgtagaatt tcctctagtc ttatatgact gtaagtttga aaatgtcaag
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gtttattttg tctaccacag gtgctcaata aatatttttg actatttatt acatgagaag
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gtttccatgc aaacacccat tgaatacgat tgaacttgaa ccctaagaga tgggctgtga
                                                                       240
cctttgttgc cctcaaacta atcaaagggg agtgatattc accatccaga atctagaata
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      <212> DNA
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ggactcagag aaagcaaggg tcagggtgac cagaaataga gaaaaaaaag ccttacagag
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gaagaggacc tggacctgag ccacagagga tgggtagaac ttagaaggag ggaatgagcc
                                                                       240
cagtctgaat gatatgtcta caaagtatac aatatgcaat gatgattaac tga
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cccgggaaca ttttgtattt accgatattg atggccaagt gtatcatctc actgttgaag
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gaaactcagt aaaagacagt gctcggattc caccagatgg aagtatgggt agtattacct
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                                                                       120
cettetecae eccaatttee aacateceet cettegtaga gagageacte tggaagecae
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tgagccccat agccctaggg cctagaccac tattccaaaa gggaagactt ttccattact
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agcttgatga catggaattc agggaaaaga ctatgatggt gtcacttgta actgcttttg
                                                                       180
tgctgtaaaa ttgtcatgga ttaagaagag agttggctgg gtgcggtggc tcacacctgt
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                                                                       120
agtoccotco cactitigoti ottigiatgoa tigitgacoga coccactico toagaatgia
                                                                       180
acggggccag agggaaactt ctcacaaact tcgtagagcc tcctcagggg aagctaggaa
                                                                       240
gaagacatca aatgttttta agtcatgacc aaacaggctt gttggggaca tatcatgggg
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gactgcacag agccgtgtcc cagacacgct gtcagtgcct tcaacacgga gccggtttgt
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tcattcggtg ctttgtttca ttaaataata qqqaaatatc catttaaaac agqtatatca
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cgctgagccc aggtgaggat cccgagctgg gcctcgaaat gacagcaggg tttgggcttg
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ggggactgag gcttacagcc ctgcaggccc agccgggcag cattgtcccc actettqttc
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gctgcctagc agatgcccaa ctgacccaaa aagcataaga cataaacatt tattgttgta
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taccctctga agttttgcat gtgttacacc atattactat agtaatagat aattgataca
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gtgccagact ggcaacttgg ggattgtgtg agtgagggag agattgtgca gagctaatcc
                                                                       180
taacattgct gatgagtgga cagaaaccat aggcctcatg aatagtgatt tctgaagtca
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      <213> Homo sapiens
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      <221> misc feature
      <222> (1)...(273)
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ataaacccct tcttaagtgc atgagatggt ttgatggttt gctgcattaa aggtatttgg
                                                                       180
gcaaacaaaa ttggagggca agtgactgca gttttgagaa tcagttttga ccttgatgat
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tttttgtttc cactgggaat aaagntggat tcg
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                                                                    181
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aaccaggtcc ctgaggacca ccacgtggct gcaacacagc aggagttcac agtccagagg
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agaagcccqa tgctqaacaq aqaatcacat ccgtqaqcaa cacaaaaggt ctcaatcaaa
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aagcctgaca aaccctgccg cagtggtgtg gccccatgtg tccccagggc ctggggccca
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cctctgcccc agaaqtcctc ttaqtqtctq taqacaqqtc ccatttccac caggtcaacc
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gagaggtgct gttttagtcc cttttgcctg ctgtgacaaa atgacacaga ctgggtagct
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tataaacaac agaaatttat ttcccacact tctggagget ggaaagtcca agatcagggt
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attggtagat tetgtgtetg gtgagggete attttetgat teategatgg cacettetea
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ttttggtttt qatcaaagat tacaggtgtg agccaccgca actggcccac tgtgttacqa
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tttgaaataa aaaggaacct gtcaagtacc cagagaatat cagaactgct gtccgatctc
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tcagtatctc aagttctgtg tagattcatc taaacactgc tgttatccat gctatacttt
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accatgttat cccaaaaggg aatcatcagc aaattttacc agaaactgct gaattcaaga
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gcagagagac agcacagagg ctgttggaat aaattcactg ggctcatctc acatgtatgt
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gagggtacat tacttaaacc cagggcatca ggatgtgctt gggctatggt ggccataaac
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cctgagccca gagagcttgg gtcactgtca cctgagtgca gctgggctgc ctcaggcagc
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agcagaaagt catcatcttg gaagaaggta gccttcttta cacagaaagc gatcctttgg
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aaactcagaa ccagtcatcc gaagactcag agacagagct gttatcaaat ctaqqaqaqt
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                                                                       180
gaacaggcac gtgcatttgt ggcacactca gagctgctgg ccactagtgt gctttggaga
                                                                       240
atcagttgtc tcccaggcgg ggaaggtccc tcagacataa aatactcacc catttagagg
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geogggeeet catteageag atgteeceet etgeetttgg tetgaatgae tgggatgatg
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                                                                       240
atgagatect agetteggtq etggeagtgt cecaacagga atacetagae agtatgaaga
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                                                                       180
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ctctagaggt gcaacceggg tgqttggtgg tcagcctggg tgacacagca ggtggcccat
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gcctactgga aggaccgacg acaaacacgt catgaggaag gagcaacgca aggaggataa
                                                                       180
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ageceteegg ggeacecaqt eqqqeaggt teteacqtqq gagggeacag ggetteetge
                                                                       180
aggeteggag geceagggeg gattgtggee agtggaaggg aaagatgttt etggeagggg
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cacctetgee tetgetetgt gttgtattat ttggggaeet gtggtetgge atgeattgta
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      <221> misc feature
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qqcttctqct ttqannqtqt nanqacacqc tatqacnccc gncaqnqnta atqncccnn
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gtttccccag cagatatcac aaatatgact ttgtttcttc tcagattggg tgtacttaaa
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aatacattgt ccagaqtcca ctgtaaggca tgaccaataa aagcatctcc atttagttgt
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gtcatttccc atttgtccag agagtgtcca acacaaaata cccctaagat cttggccaat
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aagagctggc cgccctttct atcctgtatc tctggttaaa cgtgttttct ttttcttgga
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gcaaattttt caaagaggg ctaaagctat gtgttcctct ggagagaact cctgcctacc
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gttcagtatt tcaatacttt gtattttact tgaaattacc cttagtagca tcttttttt
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cctgtctgaa agcttttgtg tggatgagaa gggacatttc atttcctccc ttaacaaagt
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ttctgaaata aggcaagatg taaataagaa ttgtgtgaag tgtttaagat ggacacttag
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attotaagtg aggacggatc ccatatatac ctcacttagg ctttactctg ctctqcaaqc
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aaaaagcctg atctcatgga gacctgcatg gccctgttag agatggcqta gaagtgaaag
                                                                       180
tottaaaggg agcattagag atcottttaa tacacgactg agtgccaqct tatttqtqat
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ccaggttcag tgctttctcc tcctcctcct ccaccacttc ctcctcagtt ttcatctctc
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                                                                 240
caqccaccqt gttttcctcc cgtacaacca ggatctaata atatttgtga ctcagataat
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taggattatg ggcatgagcc accacacta gccaggcttt ttatattgag ttggttatat
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240
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                                                                 120
                                                                 180
caaaactctc ttcctttagg gctactgaga cttgattcct gatcatcaga aatttcacca
gaaacaactt gcttccaata tacccaattc tatatgaaga attcatggag agtgtactgg
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180
acccctgag gcttctccag agggtgtngg gacccanatg gacctgggtg aggaagggcc
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230

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240

300

tetagtggtg cagaccetgg cecacaacte cacagecaca eteteegtea teagggaeta

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ccctcccctg agaagaaggc aaaaagttcc tctgggggca gctcccttgc caagggccgg
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gctagcaaga aacagcagct cctagccaca gcggcccaca aggattctca gagcatcgcc
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tgccaccccc acaacccctg aggaggtgta gacccagtct gagagccgca agcactgagg
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cagggcctga gactggacct gggtgagcgt gnngtgtgga ggntggcgag gtgcggagac
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gttttaggag aaacatttaa tataaattca aaccttgttc caatgagaaa aatacctgat
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ttacctgatt aacatteetg acaccatetg tgggteatee ttteeetgga ceqtteaqtq
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gacagettte aageagtget tgttgtgagg teccatettg gecaagaact tacetteaga
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      <211> 300
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O. DATA

<212> DNA

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300

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ggagetecaa gagaaggtea ttgteettgt ageageaggt geeceeecaa getgggttet
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aaagaagctg gcagagtcct ggggtgcgac atttatggag tcatctgctc gagagaatca
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getgaeteaa qqeatettea eeaaaqteat eeaqqaqatt qeeegtgtqg aqaatteeta
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      <213> Homo sapiens
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                                                                       120
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gaagaaagac ctgcttgata agctagaaaa attagctgaa gaccttcccc ctaataccct
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aggctgaggc aggagaatca cttgaacccg gaggcagagg ttgcagtgag ctgagatctt
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gccactgcac tccagcctgg gtgacagagc aagactccat ctcaaaaaaa aaaanaanan
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gganttacnt nantttaatg gntgnttggn aggttttttg caaacaaaaa ntcctttttt
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cccctcaatg tgtagagtag gggagcttga gctgagggta cagttggtgc ccagatgctc
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agetgeeeae etggettgge etggetteet eeacagteea taccetacet eeaggtgett
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cagggtccac agccacccca gtgggtgttt gggctgaagt agatcatgtc atgtggatgg
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gcctgtttac gtgatgtgcc atggaaggga gtggcaggttg ggcagcttgg agtgaaaagc
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aagagtgttg acaatcagaa attgtcaatg gtaattgcaa ataggaagac gcaagggcag
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aatggcagct gcaagcactg atttgcaatt atgccacttt cactgggaac tetgagtact
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ggagcacaag ggcattagct tgagggacag ccagaataaa tggaaacttc attatccatg
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gattatgcac ttggaactta ggtcctaggc aactctgata ttagtaattt ggccagcagg
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cagagagcaa gactettget tttacagaac acatattett gtggaatgag aggggetate
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atcaagtaag caaatcatte catggagtgt gttagtetat titeecattg etttaaagaa
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tectgggaag accageeett ecaactacea accegtteet ttteccaqte tqaqeeacaq
                                                                       120
gaagageeta geggggaatg teatgaateg acetecatee tgagetetee aggeetggga
                                                                       180
caatggaaag tggatagggg gctgtcttcc cagaaggaag ctgggtcaga ggttggtgcc
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ccatgggctc cacccagage cccatggcag tetecateca ttggtgccag qacctqctqq
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tcaactcagt tggatttctg ggatgagaat tagaggagtc ccattgaaaa actggaatga
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gagatgagaa gtttgctgaa aacagaacat ttttttgtgt gtggattgat ttgcctcgta
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tctaaggaaa tttcagttcc tcatattata gttttcccca taatttaata ttactaagta
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tttctctgcc cagtaatgtt gatgcagttt gcataaatag ccttggaagt aaggaggcag
                                                                       180
gacagaaagc caaatatcga aatctctggc cttgatttag tgacagttta ttctaatggg
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gaccataggt gttattagta aaaagatagt gtacaaggcc taagttcagt ttacattqtt
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ccataaaggt cttcagagtg ccttggccct agacctccct tcattctttq tagagatgga
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tacacctaca acattacacc gttcccagcc acagttaaac ccacctcagt ttctqqacqa
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catagtaagg ccagagacag tgatgaagag aatgacccag acqatgagga tgctqtcqtt
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aatgcagtgg ggtgtcttgg accttttagt gggttcctgg ctcctgaact gcagaagtac
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      <212> DNA
      <213> Homo sapiens
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catccaaaat ggagtaatga cacctacttt cgtgttttaa gatttaaacg caqtaacata
                                                                       180
tgtaaagtgc agagtctgat gttcgagtcc acaacgatgt aaataatgca aaaccagtgg
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attactcatg cttaatttat attitacttg gaaatttatt teetttttet tqqttatete
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      <212> DNA
      <213> Homo sapiens
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                                                                       120
agaattgtta ccatgtgatc aaggcatcat aattaatgca aaccctagtt tctagttggg
                                                                       180
aaagagatta agatggagac tttgtagtaa aagatggaca tatattttat tcacatagct
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tattttattt tgaatgaaag agccaagcaa actctagcct tggcctgttc ctgaggaggt
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      <210> 1023
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1023
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ctcgatctac cagaccccag gcctgggttc caagggaaaa attgcccaga ccactcacca
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gcagtgcttc agctattcgt aaacttatgc ggaaagcaga actcatgggg atcaqtacaq
                                                                       180
atatetttee agtggacaat teagataeta gttetagtgt ggatggaagg agaaaacata
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agcaaccagc tctcactgca gattttgtga attattattt tgagagaaat atgcgcatga
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tageetttea gaatgggagt aagetttgea atcaacetge teetteatet tatetqtaca
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cttgataaat ctgattcagt ggttggaacg gaatctgctt ttcctgtatt ggttacaagc
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aagcactttg cctgggtgag tgtagctgca gtatagcata gaattaagac tacagtttca
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aatatttata ccattctctc attaagtgac actggttcca taaatttaaa gacagcggtt
                                                                       120
cacccatate tatggttttg catteeatgg ttteagttac caeagteage etetgtetga
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aaatattaca tggaaaattc cagaaataaa caattcataa gttttaagtt gcatgccgtt
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ctgagtagct tgatgaaatc ttacaccatc ccctccatc caggctagta catgactcat
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gtgacttaac gcagttctaa tgtcctacat ttttatgctc ttatcctgca gttacaggat
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aagtcaagat acacggtcta caaagaaatt ttgttctaat tttataatag tagagatggg
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gteteactat gttgeecagg etggtettga acteeaggge teaageaate egeetgeeta
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ggcctcccta agtgctggat tacaggcatg agccactgaa cctggctgta caaagaaatt
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gagattttaa aatgtattgc tcaaacattt atatggtgtt tactatgtgc cctgcactac
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totgttttat aaatgttact taatccctat gatagcgcta taaggtactt actataatta
                                                                       180
tececagttt tacagaggag gaaactgagg catggagaga ttaagteatt tgtcaaaaat
                                                                       240
cagatetggg aatectgeet etggggteea tgetttaaae caccatacca tggteeettg
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      <213> Homo sapiens
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agatttcaat tttcctcttc agtttgaatg tggagtatta ggagagcctt ttgcatgtca
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aggtacagga agcagagatc acceptgeac tgctacctac atttacctgc tagaagtaaa
                                                                      180
aattagttaa gtggaaatga ttatcatata tattttctct cttccttttg aatgtacaca
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atgtaacaag agtgacagac ctgaaattac aatcaccaaa caaacccaag atagttgttg
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<210> 1029

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agttcaactg catgacetta atgtattgga geaegtetta eaggtggaet taaaaeteta
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gaattteetg agtegttgtt atttteeact gaaggtettt ceactgtaea geattteagg
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catcatcact atgattettt tttettgact gttgettgtt tteecactge tetttteece
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      <400> 1030
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cctgatagta ccatcgcact caatcttaaa gcctgtaacc attttcgcct ttacaatggc
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agagcagctg aggtattgat ggaagtgtgt ttttaatgta cttcattcca atttgaatta
                                                                        180
ctttatactt tccaagttat tcatgaaact ctgttatctg taactcttqa ttaatatccc
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ccagggtggg tggggcqcac acctqtcttt qtqcatqcaa atctqataca cctqqcqcat
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cctctggaga gcacaacgca tggaaaggtc tggaagctct gtgtagccat tccttctgca
                                                                       180
gtcatcctac ccaagtaaaa gtaaccttgg ctatgttacc accgttttgg tcacccagga
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ggacatetta geaagggtge etgegaggga gtgtgggaet gggeeteate etegeeggeg
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atttaagtgg ccagttcaat gtcctttggc tatatttgac ctacctttaa aacctagccc
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atttcatatc agcetettet gtgeetggge ttgaaatgte taaagetgee ttegtgtetq
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ggattacacc atgtaggtca gtataaagag ggcagtcact cctccatttc tcccagcgtg
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tccagttcag cagatttcta aagctgttaa gcagcctctc tttttgaccg tcctaaactt
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gtatccctaa aaccatgcat tggtctggac aggagttgtc ccatattccc ttgcagactg
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180

gtcactccat gttctctgtt acagtaagga ccagccaage ttcagctgtc ccattcctcc

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ccctacaaca cacacacctt tcaggcaggg aggagatgag cttccagccc caagagtgga
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gaagcagget tgttgggeat cagtgaatat catgetaaga gtteegtagt teaaggagae
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ctagaataag ggggaaagca ctttgtgaat tgcccaagtt attgcctagg gatatgcata
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300
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ccaaaagcaa aaacaaagtt gcttttaggt tgttctgtgg catttctgtt gggtactaac
                                                                     180
aaagaaatca cctgttaagc ctgataatga ctgtttgcaa aatttattat aagagaaaag
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gcagggtatt gagggttget tttagaagte tgtcatgata tgaacacaga ccccagaaac
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attgtaaatt cttacgtaca gcatcacaaa agacaaggaa tactgtcata tccttttagc
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aaaatgatat tgcctaggtt cttgttgcaa aataccacat aatgaaatcc ttcctgttgc
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atgattaact gggtgagaat atcatctttc cttttggtcc gtagaaatgt attattcact
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actccattct tgaggtttgt tttttaattt ttttggagac agtctcactc tgttgcccag
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      <213> Homo sapiens
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tatctttcta ccctgctgta ccatctttag ctttttatct ttttattctc atgcttttgt
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ttcttcatga tgttaggatg gctgccataa ctccagggta tacaccaatc ctctaaacaa
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gaaacaaggg gttgagacaa aacactctga gaaggttttc tgggaacaaa agacctccaa
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gctgactttg cttcataact cattggctca aactgagcta tatgcccata cttagagcaa
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      <212> DNA
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aattaggcat etttttgtgt gattatttgg taaatgteca tateeeetae tageetataa
                                                                        180
getecatgae ttetaggtae eetgtetgae taegtgtate aetgttteta eegeetaaea
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gggaagcaca atttcatagt taatagttgg gggcaggagc ttaagttata attgcagctc
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cactaattct tagaatgaat atagattgaa gtcttggggt tttttggcatg atttqtqaqa
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      <212> DNA
      <213> Homo sapiens
      <400> 1040
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aggittgctc cttcttcagt gcaacccttt gcccagacat ccctaatgcc cccagctcag
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agcagcagtt ggcaggcagg agctttgcag ttagccatcg gagagcccca cagacagggg
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ggcaagaaga ctgggcattt atactetete ttgetagtea geetggagea agettggage
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agacgcacat ttttgtactg gcacatattc ttagacgacc aattatagtt tatggagtaa
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aatattacaa gagtttccgg ggagaaactt taggatatac tcggtttcaa ggtgtttatc
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300

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       <213> Homo sapiens
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                                                                         120
gegeetteet etetgettag getggaatga gettgtacag geetgtgeet eaccenttet
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ntcttctagg ctcanngnat gcttaancng ggennggtnc acggcacct
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      <213> Homo sapiens
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      <221> misc_feature
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aagggctgat ggagctcccc gcagcatggt teetgeetgg gtgacagagg eteetgtgge
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cactttagaa gtgcggttta ctcctcatgc nganattgga cnttgggcat ntcagttctn
                                                                        240
nnagatgttg gtttggcgnt atntcttttn tt
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ttgctctgag tctagaaata gagtaaagag gaggctagac tcaagctgtc tggagagtgt
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gaaacaaaag tgtgtgaaga gttgtaactg tgtgactgag cttgatggcc aagttgaaaa
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tetteatttg gatetgtget geettgetgg taaccaggaa gacettagta aggactetet
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      <212> DNA
      <213> Homo sapiens
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agtcgactcg aggcacaact agggtttggg gttccggata tcgcctaggc ccaacatcgg
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accegegetet egatttetge egegteeege etetaggaeg eggagteegt gtgeggttee
                                                                       180
gtgaggctgg agggtagatc ttaaggatca acaaacagta ataatgactg aatgtacaag
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tcttcagttt gtcagccctt ttgcttttga ggcaatgcag aaggtggatg ttgtttgcct
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300

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      <213> Homo sapiens
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tatagttttt ctttggttct gctcatggaa acacaatgac tatcaatcta agtaagacta
                                                                       180
taatatatta gaaggatggg tgatgagaag tgtgaagtgt tgcaaaggta aatccttatc
                                                                       240
ttccgctatg aagtatcaat aagcaatgcc caaaaaaatg aactattaag aagtaactgt
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      <210> 1053
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      <212> DNA
      <213> Homo sapiens
      <400> 1053
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ttaaactgct ggcaccgaag cctccagtgc ctttctcctc tatatcccat agagagttac
                                                                       120
tgaagtagtt ctttttggat ttcagttggc cttttagtag agcctttctc ctaaaggatt
                                                                       180
aaaacgtgag actgcgggct tgagccaaaa agcagtcaga gggacaaata ctgggtttta
                                                                       240
cttagaataa cccacctgcc tagtgccagc ctaccactct tgaacaaaac ttgtatgatt
                                                                       300
      <210> 1054
      <211> 271
      <212> DNA
      <213> Homo sapiens
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      <221> misc feature
      <222> (1)...(271)
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                                                                       120
gaggetgagg etgeattate getttaacet ggggggegga ggttgeagtg ageetngatg
                                                                       180
ggggcaataa nagcnaaact ttggctcaaa aannanaaaa taaatanncn atanaatatg
                                                                       240
chaageceet thtetteeng nnnecteteg g
                                                                       271
      <210> 1055
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      <400> 1055
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ggtcctcaag gctgaggaaa gcgtaaactg tcccagacca gggaggccaa ggaggcgca
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tgactcaatg tcatgtggtg ccctggatgg gatccaggga cgggaaaagg acacttggga
                                                                       180
aaaactggtg aagttcacgc aaagtgtccg ggttagttca gcatcagaag accaatgatg
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gtttcttggt tgtgacgaaa atgttccatg gtctgaaagg tgtcaacacc aagggaagct
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      <212> DNA
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<213> Homo sapiens <400> 1056 gctacgtggg aggctgaggc aggagaatct cttgaaccta ggaggcagag gttgcagtga 60 gccaagattg tgccagcctg ggcgacaggg tgaggctctt gtctcaaaaa aaaagtccac 120 atcttcatga accctcagac tetggagttg ggtgtcggct tttttagcca gcttttgttc 180 cgtttagtga gaacctatta aagaaggaaa gtgggtaatg gagtcccagc cactcaagag 240 actggatatc ccccgagaat ggcttgggtt accagctatg gacccttgga agatgaatct 300 <210> 1057 <211> 300 <212> DNA <213> Homo sapiens <400> 1057 tecegggtte atggeattet cetgeeteag cetecagage aactgggaca acaggegeee 60 gtcaccacgc ccagctaatt ttttgtattt ttagtagaga cggggtttca ccgtgttagc 120 caggatggtc tcgatctcct gaccttgaat cacaagagtc ttaacaggga atgtttcagg 180 aaacaaatag gataagacaa tgccagagga aggatagaaa catgggaagt ttctatcatt 240 teattttetg egitteeage atgeeetigg aaaagaetee etitagteee tittteaatt 300 <210> 1058 <211> 300 <212> DNA <213> Homo sapiens <400> 1058 gagaaccccc tcaacccctt cctcctccct ctggggatga agtgggagta tttggctccc 60 catttttgac aaaagggctc agtgcaggga ggtggaggcc tctgaggttt gaagggctct 120 gtgagttaga gttgtcacat gttctcctgg ttcttgaatt tgcagcaggt cctgaaaagg 180 aaggetetge tggeecegtg cetteetgae ettetetete etteecteee etetetttte 240 ttgccaagtt tgctttggtt tctgagcagc ccagagagga ggagggttcg tccccaggga 300 <210> 1059 <211> 300 <212> DNA <213> Homo sapiens <400> 1059 ctgaaattga agatgttggt tctgatgagg aagaagaaaa gaaggatggt gacaagaaaa 60 agaagaaaaa gaagcaatat ataaagaacg ttggccagat tatgtaaggg aactgcgaag 120 aaggtattct gcaagtactg tagatgttat agaaatgatg gaggatgata aagttgatct 180 gaatttgatt gttgccctca tccgatacat tgttttggaa gaagaggatg gtgcgatact 240 ggtctttctg ccaggctggg acaatatcag cactttacat gatctcttga tgtcacaagt 300 <210> 1060 <211> 300 <212> DNA <213> Homo sapiens <400> 1060 cccggaagca tccaggatgt gggaacattg tgacatttgc acaattttta tttattgctg 60 tggaaggett cetetttgaa getgatttgg gaaggaagee accagetate ecaataaggg 120 ttctctaatt gccaacatga ttctaggaat tatcattttg aagaaaagat acagtatatt 180 caaatatacc tccattgccc tggtgtctgt ggggatattt atttgcactt ttatgtcagc 240

300

aaagcaggtg acttcccagt ccagettgag tgagaatgat ggattccagg catttgtgtg

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      <400> 1061
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ccagtgcccc attgtgtggg cgtcctcatg gggtatccat tcttctagga agatcctggg
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gctgtttcca gttcgaagcc attattaata aagctgcaag gaagaaatat ttttatggat
                                                                        180
gtgtgttttt atatctctga taaatatatt caactggaat cattgggtgt attgggccat
                                                                        240
teteceatty ecaaaaagaa atacetggee aggegeagty geteacacet geaateteag
                                                                        300
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      <213> Homo sapiens
      <400> 1062
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aaattggatc aagaatatag gtgtaggcgt tagccatttt atcctgggag aagggaggaa
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atgaaataaa aacaggaata gatagacgtt ttgaggcgaa aggaatgaat ccagcatgct
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ctgtttagtg atgtagatga gatcacctgg gaaggcatga atgggcgggc tgagtggggt
                                                                       240
agtgacttca gaacagtaat aagggttgaa aagcactgct gtgtgagggg gaaggaatgt
                                                                       300
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      <213> Homo sapiens
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ggcgcccgtc accacgccca gctaattttt tgtattttta gtagagacgg ggtttcaccg
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tgttagccag gatggtctcg atctcctgac cttgaatcac aagagtctta acagggaatg
                                                                       180
tttcaggaaa caaataggat aagacaatgc cagaggaagg atagaaacat gggaagtttc
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tatcatttca ttttctgcgt ttccagcatg cccttggaaa agactccctt tagtcccttt
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tcaattcagt tgccaaatag agcagtgggc aatgttaacg gaaacaactg caattggcgc
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agtatggagt gcctatcgca ctaggaaatc tgagggtcac aaaagaaagg agatgtgagg
                                                                       180
ataagaaact ttgtttttcc cttgttggga actctttagg cctcggtttc tggtgacagc
                                                                       240
cccagggatc atcaggcccg gaggaaatgt gactattggg gtggagcttc tggaacactg
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ttctgcagat cataccccta gcccaggage ctcccgcaga cttcagagec tgctgtcctc
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120

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accagegeee ceacatggee ggtetgagag caaqtggaga gteacagtea cagteacagt
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geccaacgee tecacetggt cetgacgggt ceccagggga caccatataa cettagteat
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gtotoattgo coggaggaat ottococcag ataggaataa cottgtaaaa aagatttgtg
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getaaaggaa catetgggca atcetacttg tgtactcatt ggattcattc agtgacettg
                                                                      . 120
ttattatcct tctagctaaa tgctctgggt cttaattcac gactccaagg ttgctcttga
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ttttaaggaa cattttggca gaatagagag aagttgagca aatattaaca gatgtccaaa
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ggggcagtgt gatttattat gtcaagagaa tcagttttat gtcgagggaa gaattttggt
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gctccacacc acagettgag attttgttta gtttcactgt gtgagetttc ataaagtctg
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ttgccattcc atctctgtgt taacacttca tatttttatg aaattcagat aatttgtgag
                                                                       180
aggetggeat ggatetaagg atttattatt tttattetag tecateagtt cagtegeagt
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agtaataggt tcaaaattaa acctcagttt gagggcagag ctggacagaa ggttagtgaa
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gactgaaaat aattaqactt qcaqcatqtc cttatttttt qacataqtcc ttaaatctqq
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gtaaatgcag gcagacctta acctacatta tagcatcggg gtgtttattt ggagagtgag
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tettetgtga teetetetga ttggtteata agtagatgga ggtaggeaaa catettaatg
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acaccateag atetggttet etecetgggg cecaaggatg etettettt teatettta
                                                                       120
ttttgatcat ggaggtgttt tcacagagtt tatccccagt agtaaattac attccaattc
                                                                       180
tgtgagtcag aacaacgttt taacatgcac accaacgtcc gggttgctgt tttgctacca
                                                                       240
gtttttgcctg gggtgcaggt atttttggag atgggtctaa aacatctcaa aaccacatga
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taggettgaa agecatetgt caetttaaaa accaeateat aettttgaet aaageagaae
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ctgaagccat tccagagaga agacagtcac ccaagaggct tctgtaagca tccccttgcc
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gaatgttagg tetgtttttg ttgtettetg eetatgtete ttgaettgea gtttettttg
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tttcaaatca ctctgccctc gtatatactt tggttagact acttttggtg aagcactctc
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caatagaaga acataatg
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tactgacett eccaaacete atcaatgeae ataaaaagag eacttgeaaa caatgaatet
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agacatggac cttcacaaag aaataactca aaatggatcc caggcctaaa tgaaaaatga
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aaaactataa aactcctaga agataacata aaagaagatc tagatgacct agggtttggc
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cctcctaagg aggtgcagcc tccactaccg gacacatttt ttgaccattt taaccgggtg
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cagtgggcct tttctatttg tgaaattaat ggcatgatcc ttgtaggact ctggttaatt
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cagtggctgc tcttaaaata caacatgccc agggattgtc tatttccctc ctctcaacaa
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agacaagctc acccaggttg tggccgatat gctggtggac aaggttacaa tagcattggg
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catttttgtg gaggatgggc tggtaactgt ggtgatggtg gcataggagg aagcacttgg
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tatctggtat gtgatcgctg tagagaaaaa tacctccgcg aaaaacaggc tgctgcaagg
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240

acgtgacatc aagaggaagc ggaaaccagt ggccacagca tetttgteta geeccagtge

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      <211> 300
      <212> DNA
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      <400> 1080
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ctaagattgt aattgatatt atctgagagg tagtgtgaca actttctttt gttgttacat
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taagccgaaa acataatact aatagacaac taacagtttg cttatcaggc acatcaacta
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ctgctagctg aataccatct gggagcataa aggtgacctg aaggtagggt gatatgtctt
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gcatctgggt cccattacac agacgtagac attgaggtct agttagaagg acttgccagg
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agtectgtaa tagagettgg cacttgggte tettgaetet cagggaetgg gtgtgaggga
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ctatctcaat caaaatggta aaqqaaqctt qtctcaaata acaqcaqaqa aactcaqttt
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acaagtcaag agaagcaaaa gtgaaaagca aacccaggac tgttccattt ttgccaaagt
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actetgetgg attagaatta ettageaggt atgaggatae atgggetgea etteaeagaa
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gagccaaaga ctgtgcaagt gctggagagc tggtggatag cgaggtggtc atgctttctg
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cgctttgtag ctcactaagc agttttgtat ccaactttgt gcttttattt cagtgttttt
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cttttcttt ctttctttt tttttt
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ctttgtgctc agagtacagc tggca
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agagagcaag tgagtgtgtg teeetggagg ggttgggege eetetggtgt taeeaceteg
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cagttgcctt attcctagtt caggettact atctagaacc tcatgctage ttaggttgca
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aactaggtcc aacaagtaaa aagaggacta gtctcaaact attaaatata tgatttacct
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agcaaaagct ttaagtcaca gctgaattac actggggaaa caattacaga ctttacaatg
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gaaagaagca tottcaatgt tggotgcaat cactgacagc aggaatactc acttttgaaa
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caccagetge tittagteca cageetetga catgegattt gaagacaegt titatggage
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agacattatc caaggggaga gaaagagaca aagagtgctg agctccaggt ttaagaatga
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agttatcata catgcgataa gtcccacacc agcacatgaa aagattagaa gaacaagaga
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agggaagaaa cctactgacc tgtttcaggg tgggatgctt cataaagagg ataacagtta
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tgcgtatatt ctctcattta tttccataga aggtgaggtt aaattactcg ctgaagttcg
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cacatttagt aaatggagat ctgggatgca aatccgctat gcctgaccgt aaagcctagt
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<210> 1094

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 cacactgagt cctcttagcg ctctcctgtg atgggggaagc cgggagagaa tgggccctga
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 aaatcagaac tagaacatag aatcetetet atettettea acagaaceeg caaagetate
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tttatttcct ggtacttaaa tattgtgtag agggaaagct agttgtaata atttgtaaaa
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tggatctaca aagagaagtt ctgcattata gccagaaagc ccaggaaaaa ttgcttgtac
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agagacaaac agcattgcag cagcagatac agaaacatga agagactttg aaggatttct
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ttaaagacag tcagataagt aagcccacag ttgaaaatga tttaaaaaacc cagaagatgg
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gttgtaaggg atcatacaga agatattgat gatagttgaa atattcttag aaggggtgtg
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tatgictage tgtgtctace atgtgtatgt attettgaca ageagtataa aatacetgtg
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      <213> Homo sapiens
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cacacacata agtacacact cacctatttt caccttctct tccacttcca cctttqtqtt
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gaacctgatt aaactctgat acttttaact ccaaaatatg ctatgctctt attaacaact
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gettgtteat tetteetgat aagaaattga teteetgaat ggattggeea tttqqtaatt
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tettagtgaa aggetgaete ttgaatatgg etgttataat ataaattett accaacataa
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agtaagggct tatttggggc ttggtaaaac tgtcatgcct tgaagtatat atagcttata
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taatettege tettgtteat etgttggtat teattatata atteagaegt ggteteaggt
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ctggagacat gtgaagttat tgctcctaca ctgagtgttt ccatgtcatt atgccttaat
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ccttatttag acacagctat gataccctct ttacaacata aaggataagc aqaaqqatqt
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1102
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tgcaatcctg gtgacatatt gagggetgaa gaaacccatt gcatatagte etectgteae
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tggagatatg tgtggtaaga aagagaaatg gccacgttgc aatagcagtg ggaaqcaaat
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gcagaaagca cccaggaaag gggaagatct aggtgacaga ggccatctag tcttttqqat
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tcatctggtt ctggcacaca gagaatggag cttttgtggc aataatttct ctactgatgt
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      <211> 300
      <212> DNA
      <213> Homo sapiens
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 tggacaccag agtgataagc agacactgaa ggcaaggcca acctcagggc ttggctcaat
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gaggagctgg ggtgatgatt ttaagtattc ttgttctggg aatggagggt atattctcca
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ttttgtgaaa ttcttggact ataggttaca ttccatttta agctatcacc cctcagcatc
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accaccatac ttgactaagg tgggactgtt tgcatagggt aattttggga tggggaaag
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      <213> Homo sapiens
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ttccacatgt gtgttgcttc atttttggct ctccgttgtc cccatcacct tcccgtctca
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ccatagggtt tagggtattt tgctgtgtgt tcaaatagaa catgaaagaa gccttttaaa
                                                                       180
agtatttctg tgcctattca cagtccccta aattttatta cagtttttac gttggtttaa
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ccgttccttt tcccagtctg agccacagga agagcctagc ggggaatgtc atgaatcgac
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      <212> DNA
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      <400> 1107
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ctgagccgtg accatgaggg ccatcccgaa actgtgattg ttttctgatg aagaaaccaa
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ggctttgtga ctaactcaac ccctcaagaa ggacaaaact agcatcagag ccccttgctt
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<210> 1108

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<211> 299
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actgcgtttc ccagagtgtg agccgctctc ctccccctaa aaagctgact cactgtgagt
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gaccttgggc aagntnccaa ancttnttga gccttagntt ncncatctgg aaaaaatggg
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gccanctctt gccannagta cagggctgcc natgcccntn tctctncatg cnccatcca
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      <210> 1109
      <211> 300
      <212> DNA
      <213> Homo sapiens
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      <221> misc feature
      <222> (1)...(300)
      <223> n = A,T,C or G
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ggcagtgagt gaaacccagg ccttcagccc tccaaagcct ggggccaccc cctqtagcag
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gcgatgctag aataaggagg agagccagag ctgaggctcc ttgccccttg gccccttcag
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gggccatggg atctctgtct cccacacccc tgtcacggnc cgcctgganc ancccatagg
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      <211> 300
      <212> DNA
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aggagtatec aaccettaca accttetteg aaggagaaat aatcagcaaa aaacaccett
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tcttaactcg caagtgggat gcagatgaag atgttgatcg gaaacactgg ggcaagtttc
                                                                       240
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      <211> 300
      <212> DNA
      <213> Homo sapiens
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taggggagat cactcatgct aggtatggat ctccttaccc ttggcctctg aatcatattt
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atggcctatc agaggcaggg ggaagtcaaa cgtaagatta aagctattgg atggggaaag
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aagactetgg accaagtett agaggatgta gaccageget gtetagetet eteteagaga
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<210> 1112
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gaacaggcct gtctggatca cttctctgtc cctaactgag cccatctcat ttagggaaac
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      <211> 282
      <212> DNA
      <213> Homo sapiens
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agttcatgtc atgattacca ggaagttcag gccagaatga atccctagag aagccaggcc
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aagcctggat aattgcagct ggatgaccct ggcccgaatg tcacagttca gttgccttat
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tectagttea ggettaetat etagaacete atgetagett aggttgeatg titaeattge
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      <212> DNA
      <213> Homo sapiens
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ggaactagee caacteaagt gggetggeag geaageetgg ettteatggg gacagaagag
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      <210> 1115
      <211> 150
      <212> DNA
      <213> Homo sapiens
      <400> 1115
gaagatgagg aagccagcac tggateteat eteaagetea tagtagatge ttteetacag
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cagttaccca actgtgtcaa ccgagatctg atagacaagg cagcaatgga tttttgcatg
                                                                       120
aacatgaaca caaaagcaaa caggaagaag
                                                                       150
      <210> 1116
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1116
gtaccacate tagatacgag gtcagagtte agatgeetaa atattgtage ttgtqttttq
                                                                        60
tccactgttg ggggaagagt gaagagattt gacataccat aatgttgatt agcttgtgat
                                                                       120
ggtttggcgg cagcttaggc cagagcataa agtaaaaagg aaaagtgttc acagacaatg
                                                                       180
aaaactggga ccaagtggtg aatactcaag gcacacagac caggcaagga tcccagtggc
                                                                       240
```

```
egtggatgag teteaggetg getetgggee agtggaacae aceteagtgt gggtgaagge
                                                                        300
      <210> 1117
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1117
tetagatete ateggagatt tggaegggaa aggggttgaa agagtteece aaageeeegg
                                                                        60
ctaggcatcc agcctcagcc atgggaccca tggcctctct ttagtgaatg atgcgccaca
                                                                       120
ecagetgtat cacceccagg tgtacetgce atcettecat tgcgcaaatg tggaaactga
                                                                       180
gcctgggggt aggggtgagc ccttttgagc agcaggtggt gtctggggcc tgggacctgt
                                                                       240
aaacaaatcc tcattactcc cagcctggtc tctgtgcttg atgtttagta ctagaagtca
                                                                       300
      <210> 1118
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1118
ctcaccaaga acacaaataa acagttgatg aatccatcac atcagtgatg aatccagaat
                                                                        60
gtgtccatca ttttcgtaag tcttagtatg cagagaatct cagatagcaa agcagaaagg
                                                                       120
atgatgtcac agacgccttg ggtacccagc acctggatgc agctgtttgt acacacatac
                                                                       180
tttctgatat tatgttgaca gtgacttaca ccacttcaac ctcaggcagg attctatcag
                                                                       240
tttctttact acagattgat ttgtttcttt aataattatt gtaattactg tcagtaaaaa
                                                                       300
      <210> 1119
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1119
gatagetate tgaettetea actatgtaat aageagatgt tgtaaateet atgetgtagt
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tcatgaatct atatgacatg tggggtcggg aacatagtac cctaccataa gtcaggttat
                                                                       120
tectactatt etgeaacatg taaataacae tttgaacaga geaagtggta aagattgett
                                                                       180
aatttttgca tgactatttt gataaatatg ttgagaagga ccagctcaaa ggaaaacctc
                                                                       240
ttggtaactt ggcataagtt aaatgtttcc caagaaagtg cactcttccc aaataaagct
                                                                       300
      <210> 1120
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1120
tggaaaatat aaaaagtgac actttaggca aatgtgatgg cctccgagct gaaatgaagg
                                                                        60
aactggcaat ctttccaaag tggcagccaa ggccccactc cctgtcctac tcaatctctg
                                                                       120
cagggaaaaa ctgtgggata ggatagcagc cagctgggga cacacagagg aacattcaac
                                                                       180
aggaaggtcc cgcctaggga aaaggccaca gagcccaggc ctcttgccga ttcagggatc
                                                                       240
cttggatata agtggattag aggagaggga ggaaagctat catttcagtg gtctccaaat
                                                                       300
     <210> 1121
     <211> 290
     <212> DNA
     <213> Homo sapiens
     <400> 1121
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gcaagactga gggaggaggg aggtttgagc agctqtaatg ggtgagggaa qaqaqtqqgt
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gggagaaagg agatttgaga agcatcgcta tgatccatga atctttgtag tcaaqtttaa
                                                                       120
gaaattcaag taaacagagt tattqtqaaa ttattatttt ttqqttqcta ttctctctct
                                                                       180
ceteteceae tetgtetett tttttttett tgagatggga tettgetetg tegeetagge
                                                                       240
tggagtgacg cagtggtgag atcatagete actgcageca atttttttt
                                                                       290
      <210> 1122
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1122
agggagggag ggggcaggac agtgtggaat ctctagggtg tatgggtagg tagggggcac
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agttagttct aagtgggctt ttatgctaaa agcctctggg gatatctgtt ttgaaaataa
                                                                       120
agataggtgt cccctccttg ctgtcatcta gcccagacac tctgcttgct ctctggctgt
                                                                       180
etgeteeetg ggaaggettt aggaggacca cecaggacag gatgaccatg etgecatetg
                                                                       240
etetggaget gggteteagt geagagggae agtgaetgtg gatggttgea gtetetggtg
                                                                       300
      <210> 1123
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 1123
cctccaccaa cccccagtc gtctgggatg gacaaccatt tggaggagct gagcctgccg
                                                                        60
gtgcctacat cagacaggac cacatctagg acctectect cetectecte egactectee
                                                                       120
accaacctgc atagcccaaa tccaagtgat gatggagcag atacgccctt ggcacagtcg
                                                                       180
gatgaagagg aggaaagggg tgatggagng gcagagcctg qaqcctgcaq ctaqcaqtgq
                                                                       240
gcccctgcct acagactgac cacgctggct attctccaca tgagaccaca ggcccagcca
                                                                       300
      <210> 1124
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1124
gggtgacttc ctgtgacctc caaaggaagt ctcagctctg ctagaatggg accaaagccc
                                                                       60
agetecacet tgaacttgtg teatageett gettettgtt eceteteett ageegggeag
                                                                       120
atgeettgte etttgataaa ggetteetgt caceteetga gggetettgt getttttgea
                                                                       180
ggtggatgcc attaccttta ccgctgtgcc tcccgcaatt gctctgttca cacqctqtcc
                                                                       240
gccatctgcc tgcaagggcc caggcagggt cttactcatc attatgtcat tgcttcaata
                                                                       300
     <210> 1125
      <211> 287
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> (1)...(287)
     <223> n = A,T,C or G
```

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<400> 1125
ggacagtggg cctggcccgt ggagctgcca cgcaggtgcc tgagggccag gtgccacgca
                                                                         60
ggtgtctgag gaccaggtgc cacgcaggtg gtgggggtac agacaagatg ctgggatgtc
                                                                        120
ccctgcccca tggtcaaggg tgttctgcct gccntnttcc anncctgann nacntacatg
                                                                        180
gaatccctan antintinat tittintgna nanantgngg ngtittatit tittinninta
                                                                       240
nnngnnttnt taatgntntn nantattatc ntntatnnct ttttttt
                                                                        287
      <210> 1126
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1126
ccctgccctg ggtctggccg gcggaagctc tgtccaaggt ccacacacct ccaggtttac
                                                                        60
gccaacatcc ttgtgccctc cccaccttct cttccaacgc attaggtgca ttgtttaatt
                                                                       120
gaaatccaac caacaattgt gtgtcaaggc tggtttggtg cagtggctgg gcaaattaat
                                                                       180
tttgggccag gatggggtg ggttgcagtg agggtaggga aaatgtcagg agtaggaagg
                                                                       240
ttcgggggtt aagggaaggg aaggaagacc agaactggcc atcctcttt ataatccatt
                                                                       300
      <210> 1127
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1127
tataggcatg agccattgca cccagcccag gtttttaata agatgaaaaa aatgctgtta
                                                                        60
taaaaagtga aaagaggcca ggtgtggtgg ctcctgcctg tggtcccagc tactccggag
                                                                       120
gctgaggcag gaggatcatt tgagcccagg ctgcagtgca gtggcacgat cacggctttc
                                                                       180
tgcagccttg acttcctggg cggcagacgg agaccctgtt ttttaaagaa aagaacagag
                                                                       240
tacaaaattg tatatgctat ataatcacaa ctataataaa tgatctgtag ataaaatgag
                                                                       300
      <210> 1128
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1128
tgtggcccca agagtgggag gagtgggctg tcagtaggcc accaataaat atctgtgttt
                                                                        60
tggctgaccc ccatatgcta ggatactgga gatgaggaac tggagaaggt gcttaaagag
                                                                       120
cacatetgte tggtagagga cacagagetg teetteaage atttgaaega tgtteteatt
                                                                       180
tecetggaat etteteetet eeaggeteae atetetaget eetteaatga tteetettge
                                                                       240
gacatcattt tagttetett ecceaaceta gtetttttge ttttaatgaa tgateactga
                                                                       300
      <210> 1129
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1129
catecetgae agttggataa taggtteeag gaagtteagt ggaaaattaa aacaaageaa
                                                                       60
catttatage tgattgaact tgaaaageca ttttggtgtt gaatggeaaa tatgtggact
                                                                      120
tcagcattcc tggagcctga tgcatcccgc tggatggccc tgttcctgtg tacatgatgg
                                                                      180
cctggggact cagcagtgtg cagggtactc tcctttagag ggtgctttga ggaaagaagt
                                                                      240
ttgctgccac ttacagaagt ccccttccca tacagtgata taacacaagt accccatgtc
                                                                      300
```

<210> 1130

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<211> 250
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(250)
      \langle 223 \rangle n = A,T,C or G
      <400> 1130
gagatgotga aggaaattat agocagagga aattttagao tgoagaatat aattggoaga
                                                                         60
aaaatgggcc tagaatgtgt agatattctc agcgatctct ttcgaagggg actcatacat
                                                                        120
gtcttagcaa ctattttagn ccatctengt gacatggnct taattcacnc gtgtntaaag
                                                                        180
tgannacntc ttggaanatg gatnctanan gannatangg engettteta etntnnnant
                                                                        240
nttnnngcta
                                                                        250
      <210> 1131
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1131
attitettee ttatgaccae ttacagtgga tatttattgt acttgaccet tttatgecet
                                                                         60
agaatgctgt gagggttacc atgttgaatt tgtgcagaag ctaaaagcac cagatgtgcc
                                                                        120
agagatgcaa tttgtgatta tgtttgcact ggattgtgat ttgaacagga cacttataac
                                                                        180
taatgagtto tttottttga ggtggggaga gggttgtaaa tcaagactto ataccotato
                                                                        240
cttgtagctc ggaaattgag gtgtagctta ggctgatgcg gagagctgca gacagctgga
                                                                        300
      <210> 1132
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1132
gttggagaaa tccaaagctg accaaaacat ggtccccacc ttttggagct tacagtctgt
                                                                         60
tctggggaac agagattcag ccaaagtcaa gaaacactgg atgccagcta gattatctgt
                                                                        120
tctgtgcttt ggtgtctata agtacatatg tggatatggg ttcattttat ccctaaactt
                                                                        180
agtaccaaac cagcatttaa tatctaatta taaatctaat ttggcctaaa ctttattatt
                                                                        240
gcacactgcc tgaacaaaac ctatttgtct ctatgtaaat tttttcctca tggaacaagg
                                                                        300
      <210> 1133
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1133
ctccagcctg gggcgacaga gcaagactct gtctcaaata gataaataaa taaaaataca
                                                                        60
aaaaaaagaa actcaaggta cagtggtggg agtcaaaaaa gcataaggag aaaaccaaga
                                                                       120
ctgaaaactg ttattgagct tagtctgtgc ctagttcagt ccctagcatt ttacaagttt
                                                                       180
tetetgagtt aacaaacttg tgggggaaac tgaggettte agatgttgaa taacttgtgt
                                                                       240
aagttgtaga gcaggttctt ttccatagtt ccgcattttt tacctgcaat acagcaatgc
                                                                       300
      <210> 1134
      <211> 300
      <212> DNA
      <213> Homo sapiens
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```
<400> 1134
gtgctgtctt gcgcttgcgc gtggcctccc aaacccctag ggatacctgg ggccagctgg
                                                                        60
ggcagtetet gtetegaeet cetttteeat ttetggetag tttacegate tgttteatee
                                                                       120
ttaggccagc tgatgacctt ggccctctcc tcccgagatc cctgcagctt ccaacagtga
                                                                       180
ggccctccag cagtgaggct gctgattttc atggcctggc tggagctggg ggcccaggcc
                                                                       240
aggagcagcc ccaggcaaaa atcacctccc gctgctcttc cctgccactc agtacttttt
                                                                       300
      <210> 1135
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1135
gtaaaacatg taatttggac atgcaagaca atgctgctgc caactaacat tgcattgatt
                                                                        60
cattaagatg ttatttttga ggtgttcctg qtctttcact qacaattcca acattcttta
                                                                       120
cttacagtgg accaatggat aagtctatgc atctataata aactataaaa aatgggagta
                                                                       180
cccatggtta ggatatagct atgcctttat ggttaagatt agaatatatg atccataaaa
                                                                       240
atttaaagtg agaggcatgg ttagtgtgtg atacaataaa aagtaattgt ttggtagttg
                                                                       300
      <210> 1136
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1136
gtctcgcttt gtgacgtagc ctggtcttga gcgatccttt tgccttggcc ttgccaaagt
                                                                        60
gctgggattg gaggcatgag ccactgcacc caccctgtt ttttatttaa gtaaaccatt
                                                                       120
ataataactc atttataaaa aggttacttc aagagggctt tcaacttaag aattattttc
                                                                       180
attttgaaca tgaaaagtta aatagtaact aagaaactga gaactctgac agtgacctct
                                                                       240
aataggtaac tttaggcaaa agtagacaag tttgtgggta ttttgttgtt catgttaaaa
                                                                       300
      <210> 1137
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1137
gtttatgaag aagctgtttc gtgtgtacag ttgctgctgt aatttagcca gcagtgccct
                                                                       60
gecetgeeet geagtgtetg cacageteee actgettete tttgetgttg ggeaegtgag
                                                                       120
gcatgacttg gagggggcc tggtgcctgg ggacctgctg aagagaatgc tcaccaccaq
                                                                       180
etetetgttt ceetttetge tttggtaate aacaegtgtt tgeetgeagt ggeeqqqace
                                                                      240
gtgactgttt ctgcccttgt gcctagttaa gagccttcaa aagcataatg aacacttttg
                                                                      300
      <210> 1138
      <211> 297
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(297)
      <223> n = A,T,C or G
      <400> 1138
ctgagatcgg ccactgcact ccagcctggg tgacagagtg agactccgtg tcaaaaaaaa
                                                                       60
aagtccnaaa ctgtttgnct tnattnaggc agnaaatatt nnanttcggn atgacctgnc
                                                                      120
```

```
atgnanccag taaggcettt acaaatnaca teenaaacaa atacanntca natgancaaa
                                                                         180
 ntanggecca aatgaaatga entetnnnte tntgetatgg engaaaetna tnangaenta
                                                                         240
 tggaatcana gatagctaaa gttcattatt taaagctnta ctcccatgag nattatg
                                                                         297
       <210> 1139
       <211> 289
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc feature
       <222> (1)...(289)
       \langle 223 \rangle n = A,T,C or G
       <400> 1139
atccagtagg tettggggaa catgggaate tgcattttt tttttttnac ngcnttgctg
                                                                         60
ttcatcatca agnanttcag gncnctaggg gnaaaaaact tntttnaaaa tgagggagng
                                                                        120
nttngcancn tnngtnattt cnttttnaat ngaatnngtt nttntnaaat nccaggacca
                                                                        180
agnnecaaag teancagtaa aatteanetg ngtnentttt naacqaeetg naaaataagt
                                                                        240
ttatgaccnc tntncggatn caaatngtnc aaaacccaaa nggccatat
                                                                        289
       <210> 1140
       <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1140
gtatagcgcc tcatatgaac atgaattcat atgtattatt tcatttatct tcacaaccat
                                                                         60
ccagagatga ggagatgaaa actctaagac ctcccagctt ccaaatagca gagccagtcc
                                                                        120
tcaaatttat tgcctagccc aaattctgtg cttcttcacc caggccacat tgcttccaca
                                                                        180
tagtttccct tcagttgtaa gtagtagaaa agtaggactc cagaatcagt atccttacat
                                                                        240
aaacagctca gtacatgaga ggcagttgtg agactggaaa atggatggga ctagactgtg
                                                                        300
      <210> 1141
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1141
attatttaaa agtottattg aaactgaatt caaagggaat gtactatgct cccaggaaaa
                                                                        60
agacataatt gagagcctct tcctcttggt ttttcactta tcatgagttc tggtctttcc
                                                                       120
ttagcactgc tggttctggt tatcccccag gcttctcagc tcagctgagg gtgtgagcca
                                                                       180
tegtatgttg gggactaget accagetaaa ggccaegtte tetgtgetgt etagtacatg
                                                                       240
agcaacagag ggaagaagtt gtgtaattgt aagaacttgt cacctttcat ctcttttagt
                                                                       300
      <210> 1142
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1142
ctgatctcca gacccataag ggagatgctg agtagacaac tggggcttat gggtctggag
                                                                        60
ttcagaggag agatcgggaa ggtgtccatt tggagtcatc cacgcagaga tgtgtgaagg
                                                                       120
ctgctcaatg attttgaggt ttaaagaaaa aaagagatgt gaaaccaggg gccctgatga
                                                                       180
ggctgcccag gtggtaagga agacagaaga gaagccatgg gacagctgag cccgggcacc
                                                                       240
ctcaagcctt ggaggcatga agtttggtgg ggatctggca aagaacacct gggagcagcc
                                                                       300
```

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<210> 1143
      <211> 189
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(189)
      <223> n = A, T, C or G
      <400> 1143
gaaacagaca aatctgtaat aacggcctaa ttctgtgtct gtgataagtt tcattactqc
                                                                        60
ccaataataa aaaatqtqta ataattattt aaqccaattt qttcatttcc aacaatttct
                                                                       120
ttttttttt tcccnanacc cnnantttaa aaaccctggn tnaanggttg aaaangggga
                                                                       180
nngggtccg
                                                                       189
      <210> 1144
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1144
agcagctgca tctaggggcc cttggtgaga tttacactca gagcctgqtc qcccccqtt
                                                                        60
agcccagatt caaaaggtga acatctgttt gcagaatctg attcatgaga aggtgagttt
                                                                       120
attgttttca gtttagactt ttgggaagtt ggactagaga ggggagttgt tggggtcagt
                                                                       180
gctggcttaa cagaaaacac agcgaatttc ccctccagtt ctccccaagt ccactgaaca
                                                                       240
aggctagttc ctgcaccacc caggattcaa aggaaagacg aagggagcag aacttgtggc
                                                                       300
      <210> 1145
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1145
gaatattaag ggtattcatg agaggcaagt gataggttac tagggatgga ttgtgtggga
                                                                        60
gaaataatgc agaggaaatg atqatcatct ccattqaatq acaqctqtta tataqcaaaq
                                                                       120
ataaatgtaa aattagtott attottggaa gtggaagaca gcagttatca gagaggagaa
                                                                       180
tttaatcaaa agaatcagaa tagcatggte acaggccaga ttcacattga agtatttact
                                                                       240
ctatatttta ctgctgttac attcaaaatg tatcagaagt ctcatggttc aattaataga
                                                                       300
      <210> 1146
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1146
gaacaaatca cttaaggaga aagtagaaaa aaagctgtat tttaacaaag aggtattcta
                                                                        60
atcggcaaga caatgaccaa ccattacgac caaccattat gagaatatag cttagggacg
                                                                       120
tttgtgctca gctcctcttt tacccaatgt caatgcctqc ctcaqtqtat tttcttctqq
                                                                       180
aggagagttt tgtggatgcc atctttccgt tacggaaaac cagtggagga atgggcagtt
                                                                       240
tettgecatg acceaecate atttaaacaa ttggtgtttg agtteagaaa taageteata
                                                                       300
      <210> 1147
      <211> 300
      <212> DNA
      <213> Homo sapiens
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```
<400> 1147
cctgcctcag cttttcaagt agctaggact acaggtatac tctaccacat gtaggctaga
                                                                         60
ttattttctg tagagaagag gtcttggtaa gttgcctagg ctggtctcaa actcctggcc
                                                                        120
tcaagtgatc ctcctgcctt ggccacccaa agtgctggga ttttaggtgt gagctacagt
                                                                        180
gcttggcctg cataatttta taacttatat attcaccatt ttacacattc agagaaagga
                                                                        240
gttgtaacaa gacactttat aatatagact aagtcatttt attgacagtg tcatgaaagc
                                                                        300
      <210> 1148
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1148
etttgggate tttagatgaa tggtateata cagatgtgta ttattgetaa ttetttgtte
                                                                         60
tcaatcactt gttttcaagg acactaaaat ccatgtagcc cctaaaaaaag ataaataagg
                                                                        120
gcaagtcact tttcttcctc cagtcacaga ctaaagaaat tatttcagat aatatatagc
                                                                        180
ccttcagcca tgggagcagg aagtgtttac tgctcaagtc agggtctcag ttggtaaaat
                                                                        240
aaacggaaac ttctggttta gttttagggc cttctttcaa ataaaaactt cattttctct
                                                                        300
      <210> 1149
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A,T,C or G
      <400> 1149
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gaggtacete ageaetttet taccageett ttaacatggg cetecaetgg gtgeatgtga
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gaaagactgg gatcagagaa aagaacctga caagctccac cccctgtgtc ngaggtgcag
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tttatcaaat taacatcaca acttctagaa gaaagtcaac cttcatcttt tacaatagaa
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atcatatgtt ttgctaaccc attcctattt aggctgaaaa caattaagag ttatgggtac
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ctgatccagc ccttcatcga cttgcggcaa aggatcatgg tcatcaaagc caaagggatg
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gagcctatag aggtgcctct tgaggaaaat agtgaacgga ctcagattcg ccaaagcagg
                                                                     240
gtctgtgctg acagagtaag tacttatgat tgtggagaaa aaatttcaag ctggttgtca
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agccccaggc acaatggccc gttgaggaag aagggggacg atgtgcagtg tcaggttatt
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cagttgccta tctcatcatt gtgttaggct cctcatattt tccttaggga aatgctatgg
                                                                    180
agagttcagg tcagaatatt gtgttgtaaa tgttgccaca gtaaatgcaa ccccggcctt
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tactgttggt tcatctcaga tgaatatgtt tctaaagtca tgataaacca acctcatgca
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tgcctgctgt gccccgactt cccacaccag ccgcgcccac cgcaggtggg actcaggttc
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gccctctggg ccaggtcctt cacgaggagg gagctaccct tcgccagaag tttgtgagaa
                                                                    240
tgtggccgcc cttttcctgc cctctgcccc atgtgggtgg ggggcctcgt ggcccggccg
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cgatagaata ggtatcagat tagggattac aaaatgtatc atgggtacta aatatcagta
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caaagcagcc acaataatat tgatttatgg atttaagtaa cccgaccaaa ccttgatgta
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totcatcatg ttgaatttot gotccagata ataaagtatt gttcgatott gtgcattggc
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ggagaatcaa gaatcagtaq qtqttaqqcc accqqqattq cctqtatcaa aqqaqqaqca
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caaaaccaag ctgttctcaa tcaaaaqtaq atccaaaaca acgttttcac aaaagtccaa
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      <210> 1158
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      <213> Homo sapiens
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cattcaaaat atataaagaa ctcctattac aaagaaattg acaaacagcc cagtatatca
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atgaatataa aaatttgaga agatattttc cataagaaga tatctaaatg aacattaggc
                                                                       240
atgagaaaac caaattttag gatatcacta cacacctggc atagtttaaa agactgaaaa
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gctgtaagca gggaccattg aaattgattc ctagagtctt gttctacaac ttctttaaaa
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attactgatt tgacagcagt atgtattcaa catttaagac tttctgtcta attttgagca
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tacattcttg actaaggcta gcaattagag attctttctt taatttatca gatatctatt
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agttgtagtt caaaggetge eetgeaggga ageteatata eeetataatt taaagggeet
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cagacgactc ttgggaaact tggtaaaaca ttctatttag agacatgcct gctgatatga
                                                                      240
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                                                                      300
     <210> 1161
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<212> DNA

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300

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gagtgtccct gctacttgac aaattgaaat actaagattt atacatttcc atggaaaaag
                                                                        120
caacagtggg aaagagaggg cttcccaqat ttgtcttata qatctcatcc ttcaqaqact
                                                                        180
agcettetgt tagaaatget gtetecaage acaagacaga ataateatat aataccaata
                                                                        240
cacaccagtt gctaaggtct ccatcctttt aagtatttgt tactgagtgt tttgcctgta
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      <210> 1167
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      <213> Homo sapiens
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cagaggagat gatgtggtat ttctatcact aaaaqqaqtt caaqaccaqc ttqaqtaaca
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tggtgaaacc ctgtctccac taaaaataca aaatttagcc aggcatgatg gcgcatgcct
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gtaatcccag ctactcggga ggccgaggca ggagaatcat ttcaacccag gaggtggagg
                                                                        240
ttgcagtgac ccgagatcgc gctactgcac tccggcctgc gtgacagagc aagactccgt
                                                                       300
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      <213> Homo sapiens
      <400> 1168
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agggtaaaga atatqaacaa ccttcactqa atttccatat cttatataat aqqaatqaat
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ttaacatgga cacaagtccc agtgatataa ggaataggca agagtagtaa ttcttcacat
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cttataaagt gtaagaactc acctttggga gaaaaatctg gttctaaggc atgtggtaaa
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gcctttgttt cttccactat tggttatttt tcttttttt ttttgaaaca
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      <213> Homo sapiens
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cattggggtg gggtcagaga tgtgcaggga ggaaggggga gagggcacgc cagtgaagca
                                                                       120
ggacttatct getececetg getacacect caetgagaac gtggceegga teetcaacaa
                                                                       180
gaagetgetg gaacatgeet taaaggagga gaggaggeag getgeecaeg ggeeceeggg
                                                                       240
tetecacagt gacagecaet egetggggga cacageegag ecagggeeca tggaggaact
                                                                       300
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      <220>
      <221> misc feature
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tetteatgat ggttagatee tgtgggetat cateaetgea gtteaacaat gtggtgeeta

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180

240

300

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geatgggeea tgagegggea etcecaatae agettacegt acaggetttg gacatqeeqq
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aggagggtga ggaacctggg gtaagccaca ggggtgtgga ggggctgtcc ccgcqtccqc
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                                                                        120
agggacttgc ccaagactgc ccaatggcaa tgagatttca acctcaaatc aatgttcttt
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ttaatgcaag atgataaaga gtaggattta gcctaattta ggatagaata aagccaaata
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gaaaataatc ccactcctga agtgatgaaa tgaagagtgg ctagagagga gaaaagaacc
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aggacaggtg atatattagc aactgtcagt gtgaataatc cagggtatga catttctaat
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cctgggttga aacagagatt cggatatcct cagtatgaag gtgatagttg aaactgggga
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ctggatgacc gaaagagatc acccagaaca ccagtacaga gaggagagag ctgaggatgg
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accactggca ctcaacgccc atcatcacgg gcaggacagt tctacatcat ctccctccgg
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cctgaggett cccaggcagt gtgggaaggg gggctgcatc tcctggctgg ggttcacacc
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accactgtca ctcaacgccc atcatcacgg gcaggacagt tctacatcat ctccctccgg
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cetgaggett eccaggeagt gtgggaaggg gggetgeate teetggetgg ggtteacace
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taagtttcct gaggtccaag ctgacctgga aagtttctag tgagtggcac atcctgtccc
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catttaattt aaatgactet gettgtetea etgttatgat aaatttgtgt ggtagatege
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agcctgttag ctattactgg aagttttctg cttttattac aggcctctca aataggtagg
                                                                       180
ttttaacatt ttattggacc ccctgcccct tcccaatttc aactattaaa tccttaaatt
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acaatttgga gataacacaa acattaaaaa gaagaaaaaa ttgtatccct ttttgactaa
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gcaattctag gattgttatt tttttctcct gaggaaacta gcatggatgt tcacattcag
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cattictatg atggggtaga ggataatgcc tatgcttaca aagtggctgt gggaagtaaa
                                                                       180
ccggatggga taagaatggc ttgctgtgga ccacaggcac cgcaggataa ccattcctca
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gacgtgtgtg gttgactggg atgaagttgg agggaggggc agggccttgc aggggattgg
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tactgatccc agggaggaag tgttggggct tcatgaacta ggatgaaagg aggccctga
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gccatgacaa ggggcacatc caggatttcc gccaccctga atttagtaga gctagtaggc
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atctgtagta atgccttaga atacaatcca gatagagatc ctggagatcg tcttattagg
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catagageet gtgetttaag agataetgee tatgeeataa ttaaagaaga aettgatgaa
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                                                                       120
tetttaatga teeggaeetg egegaagtet ggeteaatta teeteteeae eeacteeaae
                                                                       180
tacaagagcc aaatactgat cgacaactta ttgaaacttc tccagttcta caaaaactta
                                                                       240
ctgagtttga agaagcaatt ggagtaattt ttactcatgt tcgacttctg gcaagggcat
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1187
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atttatagaa aaattccacc ctggccatgt gggcctgaaa ctctggaggg ctttaacaat
                                                                       120
gtcttgaggt cattgtcatt taaagagatg actcattggt tttatttagt agaaataaat
                                                                       180
actaaataaa taatctccac agattatcca gaggggtaag ttgaaggatg ttgacagata
                                                                       240
actcagtaaa ttgcgtctca aatattaata agtttattct atgccagcac caaaaatatt
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      <210> 1188
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1188
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                                                                       120
ggaaacctcc ttctgcaatt taagaaataa aatcccagtg acattgattt ggatgctcca
                                                                       180
aacatgtcca taatggaaga gcttttccag gttttggttt gggcccccca gaccaaagct
                                                                       240
ttgacacata atacaagete tgtaagtetg ttttcctgtc tgtaattttgg gattgtcate
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<210> 1189

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<211> 300
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      <400> 1189
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                                                                       120
gtatcattgc tttctttcta tattggatta ttgtcagaga acatgatttg catgatatta
                                                                       180
actititigga gtatatigti qcatcitigi ggcctagtac atagtiaati taqtqaatqc
                                                                       240
ttccagttgt acttgaaaag aatgtatatt ttctgattat tgagggtaaa tttctctata
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      <210> 1190
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1190
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gactagagaa caaactaagg ttgctgcaac aaacaaggac ctcttccaag aaggqctccc
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aggcctggcg cagtgactca tgcctgtgat cccagcactt gggaggccga ggcqqqtqqa
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teatttgagg ceaggagtte gagaceaget tggccaacat gatgagacee eqtetetatt
                                                                       240
aaaaatacaa aaattagcca ggcgtggtgg cgcctgtagt cccagctact caggaggttg
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      <210> 1191
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1191
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tggggtggcc ttggaaactg gcaagtccag cttcatcttc acagggctag ggaaacaggg
                                                                       180
cccagggagg tegecetgee agggecacae agggaggagg tgtgtggete catgtggeet
                                                                       240
caggcctgaa ttctattatt attattatta ttatttttga gatggagtct tgctctgtca
                                                                       300
      <210> 1192
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1192
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agacgtgtgg gaggagcggc ggcccatgac cacggcgcgc ggctggcaca gcatgtgcag
                                                                       120
cctgggtgac agcatctact ccatcggggg cagcgatgac aacatcgagt ccatggagcg
                                                                       180
cttegacgtg ctgggcgtgg aggcctacag cccgcagtgc aaccagtgga cccgcgtgqc
                                                                       240
geogetgetg cacgecaaca gegagteggg egtggeagtg tgggagggee geatetacat
                                                                       300
      <210> 1193
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1193
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tactgaagga cctgaagaca gatcatcttc acataatcag catgacccat aatctgtgat
                                                                       120
gtcactgage ttettttatt tetgtagtea aggaatgtge acaagtaatg caaatataat
                                                                       180
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tacttttagt cctgaggatt agggaacttq ggggatgttc acattacctg atgatgtcaa
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      <210> 1194
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      <212> DNA
      <213> Homo sapiens
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ttaacagata cctgagtgcc aagcataata aacaggaaat atacacttca aaaaagaaaa
                                                                        120
agaaaaatga atgcatactt atcaaatact tgctgtaaga gcattaagta ctttacataa
                                                                        180
gtcaaatcat ttaatcctca tgaccctaag aagttatttt aagatctttt gagaatgaga
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aaaaaggatg agtaagggta ggtgatctat gtaaaacaaa taaattctag taactggcaa
                                                                        300
      <210> 1195
      <211> 300
      <212> DNA
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tttqtcatct cattcttaqa qaqctcttqa aaaccaaaqt atttaaaacc ctqcaaqttt
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ctgtgcagat gagtgcaaat ttccacccag cattggttcc tgagtaatta gaggaaggaa
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gccatgcaaa agctgctatt gcccaggctc cagaaaaaca tcatgtaagg tttgattcca
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      <210> 1196
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ggagttgggc tccaacccag gtcagtctgt ttcccaaaac ccttctgttt gactttgccg
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ctgaagaaga tacaatgaga tgaagagtct tgggcatgat ggcacacagg tcatcaggaa
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gaaggccatc aggaagttgg actagaggtg ggaggggaga aggaattagg ggatttggaa
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      <211> 289
      <212> DNA
      <213> Homo sapiens
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      <221> misc feature
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                                                                       120
aatatetttt ettttgagag tacceccagt ttatttetae tgtgetttat tgetaetgtt
                                                                       180
                                                                       240
ctttattgtg aatqttgtaa cattttaaaa atgttttgcc atagcttttt angacttggt
gttaaaggag ccagnggtct ctctgggtgg gtactatncn gagttattg
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```
<210> 1198
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aagttgtaga atttaaagga ggtgaagtaa ggcgatttct atggaaaata tatttttctt
                                                                       180
ctttactcct catgctgagt gcataagaat ttattatttc ccctgaatgt tcaaagtggt
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gtgtgtgtgt gtgtaaaaga accaggagca aacaatctta ataggaatgt gcgatcttgt
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      <210> 1199
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1199
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gttgttgagc aattttgttt ttttttaaag cagggtgacc tgaaaatgct ttgtagagga
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catgggtttg ggccgcccct tgaaatgctg gggaggattt gactccttta ctgtcgagga
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gggggaaggg cattgccaca gttgggacag tggcacaaac tcaaaaggaa ggaaqaacta
                                                                       240
ggtaatttga aaaacagaat aaaccaattt ggctggaaag tgaggtcttg tgagaaagca
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      <210> 1200
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1200
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tatctccagg tggaccgctt cagcctgctg cccacggagc agccccggct acgggtgcct
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ggttgcaacc aagacttaga tgttcagaaa aagctctatg actgccttga ggagcacctt
                                                                       240
tcagagtcca cctcgtccaa tgcaggccta tcactgtccc agcttctgga tgaaatgcgg
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      <210> 1201
      <211> 300
      <212> DNA
      <213> Homo sapiens
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getgetgaga gggtttegtt tacaagtgae ettgagtgta ttteatetet ggaatgeatg
                                                                       120
gtccctgcgc tcaagctaca caatctgatt agtgaagtat tactaataca ctagaaaaat
                                                                       180
atacatagta attaccaaat gactgacaca attttatagg gggttcagag aaacatctgt
                                                                       240
gaatgggtaa taatgaaaaa agaaaagttt ttctctttgt tttagtctga cccttttaac
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      <210> 1202
      <211> 148
      <212> DNA
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      <400> 1202
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ctgctgcctt ccctggcagt gttctggggg tggattccct acacctagat gttcaaggcc
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ttacttttcc tcccacaaag gattcgca
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      <210> 1203
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gtgggagcat ttatgagetg teagteecea caettetage cagaateaca ataaggtetg
                                                                       180
gctgggtgtg gggtgctgca taggaaaggg tctctggaga agcaagaagg gcacaatcat
                                                                       240
ggcccactgc tecectette tteteaqtqc tetttgccct etectgetqc qatqettect
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      <210> 1204
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      <212> DNA
      <213> Homo sapiens
      <400> 1204
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                                                                       120
tttagaaaag teteetttgt aatgtgeate attaceagtt atetaaagaa aaacatgtaa
                                                                       180
aagccaacaa aaccettgaa aatattttge atatggatgt etgttteaeg ttteaactga
                                                                       240
agatgtatag agcacctctg atgatgagga agataccatg ctaggcagta ctttcaagaa
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      <210> 1205
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      <213> Homo sapiens
      <400> 1205
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ttaggtatga gaacaagaag agagaaaact tggcgctgac cctgttatag tggttatagt
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ggtgtcccta aagggaggaa atqatttcag caaaactggt tgaacagcgg atgaaqatat
                                                                       240
ggaattcaaa gctctaatgg acctttttga agagaagttg tggcttatgt ggagtttaca
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      <212> DNA
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tgtttatagt ttactttgaa agtaaaatat actatgtctt ggttttgagg atattggata
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caaaactete tteetttagg getaetgagt ettgatteet gateateaga aattteacea
                                                                      180
gaaacaactt gottocaata tacocaatto tatatgaaga attoatggag agtgtactgg
                                                                       240
cactggaaga gtttagtgtt tcttgtatgc ttgaaaataa agtatgtact gttttgaatg
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     <213> Homo sapiens
     <400> 1207
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ggtggtgtta cattcacact gttgcaggtg tgcaggttgg tgttacacac attcacactg
                                                                     180
ttgcaggett gcaggtcggt ggtgttacac acattcacac ttgcaggegt gcaggtcagt
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ggtgttacac acattcatgc tgttgcaggc atgcaggtcg gtagtgttac acattcatgc
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      <210> 1208
      <211> 300
      <212> DNA
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      <400> 1208
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tgatcttgga ccaccgaaaa ggtaaaacca gtggcaagct tgaatgcttg ttttatggta
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gacttagata cgagaacggg taaagggtac tggataaact tgggatataa gattgtcttc
                                                                     180
ttttatgcat accactcata ccactggtgg gaaatttcat ttggaattac tccctagggc
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catggagtet teetgeatat getaataatg taagtteeca ttaeetttgg taataagaaa
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      <212> DNA
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      <400> 1209
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ctaggtaacc cccctgagat ttctcatcct cttgagaatc ctgtgagatg atcctgctgc
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ccttattttt ccagatggaa aaacggatta cccag
                                                                    215
      <210> 1210
      <211> 300
      <212> DNA
      <213> Homo sapiens
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geetttteea ggggeaggge ceaggagaee atteecagaa teeatgggge agtagecagg
                                                                    180
geteeggetg etggaggaag eagetateea caaagettee tgeeceagag etgaggetga
                                                                    240
ggccccggga gaggcggccc ctacccaaac actggctgct ggcattccac caagtgaccc
                                                                    300
     <210> 1211
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     <212> DNA
     <213> Homo sapiens
     <400> 1211
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tattttaaat gtcttgcagg gagtggaaga aagctttgct taaaaatgtc accatatgct
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aactatatac agcacttcaa gtttatttat tgttaaagcc tcatgtaaat cacgtcattc
                                                                    180
tgaaaatcat ggaaactgca catttgtgca ttaaactatg taaacaacaa aaactggtca
                                                                    240
teegteeaat tgttgtttea ettatttga attatagtge aattttgtgg agggtgaaat
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     <210> 1212
     <211> 300
     <212> DNA
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<213> Homo sapiens <400> 1212 agggaaaata tgacaaacct caactatggg agttgtccac aatacaaaat tttgaaaaaa 60 cattacatag tgataatatc atacttggtt gttaggcttg ttgcttcccc acatcagagg 120 catctaatga tttatctttt gtaattgctg tgaacttttt taaataagcc atttagtgtg 180 aaattgtcat gtatcaaatg gctattggaa atggacttta ctcaatttta attccactgt 240 aaataaggac ggagtcattc ctacaaggct ctcttcagag aaatagatta aaagtccaat 300 <210> 1213 <211> 300 <212> DNA <213> Homo sapiens <400> 1213 eteteactag ecetgggeae tteceactge etttgtggae ttetgtttge tettetgtag 60 aatgggataa cagtgccagt cctgcttact atttagggtt atgtgatgct tgcagatgta 120 cagggaaagc accgctgatg ggagctgctg aagtttctag gggaggtgaa ggtggcgcct 180 cctcccctgg tctaagtggt agatggtgca gggagaggag aatttcattc tgtggcagca 240 gctgatagat tccaggtctt taatactacc tgggaaacct taacaaagca gtcagtcacc 300 <210> 1214 <211> 299 <212> DNA <213> Homo sapiens <220> <221> misc\_feature <222> (1)...(299)  $\langle 223 \rangle$  n = A,T,C or G <400> 1214 aaacagteta tacatgitea giacagaige agecatecat titetigiee aaatattitt 60 tatctccagt tggttgaatc cattgatgca gaaaccacgg atacggagag ctgactctgt 120 gtgtgtgtgt gtatactcac caattettta tttattnaac ngatatttat tgaatnttta 180 ctatgnggga ngnatanttn angagentgn ntntanetta gnenteanee ntggettann 240 geneenggan tetnatgnag ateenagane gntngneenn ateaenntge tttgegeet 299 <210> 1215 <211> 300 <212> DNA <213> Homo sapiens <400> 1215 tttttagttt tccaaatctg aattgactct ttttttcttt cttctagagc cagaaacttt 60 tgataccatt tttcatgctg ttgaacttca tcttgtgttt ttccaggaag gtgttctaga 120 acttetteca taaatgttgg etteeettta tgtttgttte teacetttae aaagttetgg 180 tgatcataat cateccagge acettgtege ceteetgttt getgaaggaa ttttteaaaa 240 totagtacct cttctggaag agtacttggt gttactttgt ctacaggaac tttgcttgag 300 <210> 1216 <211> 300 <212> DNA <213> Homo sapiens

<400> 1216

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cacccgacct caaggtagag ccgcccctg ccaagggcaa gaagaacaag gtatccacga
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gccgtcagac ctgggtggct accaacaccc tgagcaaggc ggccttcctg ttgacagtgc
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taagtgageg tecagageae cacaacetgg cetteegagt tggeatgttt geettggage
                                                                       300
      <210> 1217
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      <212> DNA
      <213> Homo sapiens
      <400> 1217
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gtgtttacac cctgggacct gccgcaaggc atggctttca gaagagcctc ccccaaqaa
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atgctgcaga caggacgggg cttctagaga ccttggcttc tacccaggaa ggctgatcta
                                                                       180
ttettegaet gttgeateag etteeteaac etetgeaggt teaggetgeg ageeetaggg
                                                                       240
agcatcactc aaagcaccct gttggccact taggatcagg agggcctcgg ctcacccaag
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      <210> 1218
      <211> 290
      <212> DNA
      <213> Homo sapiens
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      <221> misc feature
      <222> (1)...(290)
      <223> n = A,T,C or G
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                                                                       120
tgaacctntg aagtngaggt tnatagagnc nnaaccgngc nanngtactc cagcntttnn
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gacattancn agattncgnn tnanaaatna aaannccncc ctttaaattc tgttttttt
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tnncttnnng gtnntttttg tggagtanat tttnnntttt gnttctatta
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      <210> 1219
      <211> 300
      <212> DNA
      <213> Homo sapiens
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acctgctaca tctgattcaa atgcgggaaa aaataccatg tgtgcataat gaaaaatcat
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tcatttttcc ctttcttacc ccagcaggaa tagaaagcaa ttccaagcca ctctgcaaat
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gtatecaagg ttagagatte gggagetgge caacatetta caeeecaaat qaetgaagea
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      <211> 300
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     <221> misc feature
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      <223> n = A, T, C or G
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aggattagaa ttcttggtct cttaacctct cgttcagttt tttcctcgtc gactcacatg
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ccctccaaat gaataccgaa gttagatttt qcatattaaa ttgaaagaaa gttaaaagcc
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      <211> 300
      <212> DNA
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      <400> 1221
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ttcacattta tggccgatac tcccaagaac ctataaaaaac cttttctcga tttaaagaca
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cagcatactg tgctactttt cgacaagatg gtagattgct tgtggctggc agtgaagatg
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gtggagttca actttttgat ataagtggga gggctcccct caggcagttt gaaggccata
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ggtgggagag aaaggtgcgt gtgagacagg agaattgtct taagcatata aaacatgtat
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gattccagaa ttttagtatg ttttgtataa aactattttt cattacggag actagaagtg
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aaattttaaa ettttttget gacaactatt tatgaettta tteaacaaag tgaaacaaca
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atcaggette tgeagtgete agagggeage aatacceage aaccagtgae cegaggecag
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caacttettt tactteecce teagttggat ttgtaacaga gtatetttgg tgggacaett
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cggttcccct acgcgggaaa caggcaggag gtgactcaac tctgagtgga tgtgtgggcc
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atattcatgc tcctgaagac tcacaaaata aaggaaactt tatccagctt tttccagaat
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ttacttgcac atagactcca tttatatagc atgcctattg aactctgtaa atagtgcagt
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tcaggaaaga tagcagtgtg ggaaatgtca ctctaatggt catatacgtt tatcccatgg
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      <212> DNA
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      <400> 1227
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agctgagccc acatcactcg ttctgctgcc caggtgtgct tccatcttca ctgtggaaaa
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gtcattttga actccccgga gactgcaaat taagtaatca aggacagatg ggactgggtt
                                                                       240
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accttaatca gaaagattaa tttctgtcct ttcagtcttc tttctgtgct cataaataag
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cattgtttct tttaatcaac ctgggcagta tctttctcat tttaacagtt gtctagagct
                                                                       240
cagttgtccc agcatttatt tcactggtcc ctgatggatg gagggtggtg ttgcttcagt
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      <213> Homo sapiens
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aaagttcatt ctttctagta cctacattct ccaagtaatc tgctcttttc agtgcctgaa
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gtaaatcttg gttaacagct gaggagtagt attactgcaa gtgttcgtca cttgttgctg
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actetgtage caacatacae atgatttaaa accettteta aatatetate atggtteate
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cttgtccaat gcagagtcag agctatttgt acttcattac tattcgcctt ggaaataata
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      <212> DNA
      <213> Homo sapiens
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geageteece tgtgggeett geeaaatggt ttggeteaga tgtgetacag caacecetge
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cctccatgcc cgccaaagtt atcagtgtag atgaattgga ataccgacag tgagcagggc
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gaagaccttt gtttgagttc tgccacttta gtagtgatac atctcagaga tcaacctctt
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taatgeetgt etttgtteee tggaacagag tttgtgttte ettttgtgtt acaacagaac
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gcccttggaa tgtcaatggc ctggtctaca ttgagaatga agactgagaa agggcttcct
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gagggacaga gagctgcagg tgatcaagga cactcaatgg gtctctgagg gaaaagaaga
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ccaaagaatt agggagtagc tagcagaaaa tggaggcatg acactaaaca cagactgaaa
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agtggaatgt ttctagtgtt tgtgaagata tcaattgctg gctgatattt taagctggat
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gaaaaatgtg ggtgaagtaa tcttaaaggg tgatagattt gatatgagaa atttaaagta
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gctgaagtca caattcactg atggaaaagt tgaaacagct ggctgtcctg aaacaggaga
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tgtgccattg atagatctac tggatccaga gtgatttggc caaagttaat catttctttc
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Ccaaacatac caagcaacag acagaagcgt cacttggaga gaagaagaaa gggttaactg
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gcagagctac tgtaaaagaa ggatagagga gggtaagttt gaaagtggcc atgggcaaga
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attiticticca gatagetett gattataate teteteacet ggattattic ecateteetq
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aaggactacc atgatgggaa aaaataagag gaaaccttac cctcccccac attcccacat
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gaccagcage ataagggete caggttacca cagtatecat catttgtett atggecacce
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aagtacacct gtttacatga cttactgggc ctgtgtagaa attgcagttt gtgataggat
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      <212> DNA
      <213> Homo sapiens
      <400> 1238
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gttcaggtct gggtggcatc ctgagaaagg gagcaaggca gtgtggtgat gccaggtqca
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agaagttggg ggtgtccaga gggaagtgag atqctctgca aaaaagtcag aggqcatctc
                                                                      180
agaaaataga gccacttttc ttgatttccc agaaataqtc actcactcaa agcccttqta
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<210> 1239

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catctctgac tcggaagggg cttgttcgag ttgtattttt tccattgttc agcaattggt
                                                                       180
                                                                       230
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tataaaggaa agagaaaaaa taggactgtg gcttagtttg ggctctgttg actgactata
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aaagtgagcc aatcacatag taattttctg acaaaataga gtttaggtta aggcttaggt
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caaggctgta ctttgtgtta atagtattat aatgagcaaa ttaatagaaa caagaaaaca
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      <400> 1241
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cctaaccatt cagtcaggaa ttaaaatatg gcattgtata acaactggga agaagctcat
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agtggatata aattagagta gataatgggt caccttgata gcctctgttt acattacttg
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cacttgagcc caagaatttg agaccagcct gggtaactta gtgagaccct gtttctaaaa
                                                                       120
                                                                       180
ataaatagac agatgataga tagtcagata gagagagaga gagagatgat atagatatag
                                                                       240
atagatagat agaatgttct ctaccccaag ggtggagaaa gacttgagca aagacacaga
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ggccacatgg attaaaaqqa qqaqqagaag ccctgtgttt gcagggatga atggcctatg
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      <212> DNA
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gatggggcct tagggccccg ccccgtctag cctggcccgg cctgcgcgag ccccgcaagc
                                                                       180
tetgcagget ggetageggg cagaceceag ceccaegtee tgetacecae etacgaagga
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teeggggatg ggeagegeea eeeggeeege teeagagtea geatgggtet eegtgaggee
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      <213> Homo sapiens
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etggetgetg tetetgetee teggettggt ettggeettg etggggegga teetgtgggg
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cctgaagctt gtcatcttcc tggccggctt cgtggccctg atgaggtcgg tgcccgaccc
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ttccacccgg gccctgctac tcctggcctt gctgatcctc tacgccctgc tgagccggct
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      <400> 1245
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cgtccgagcc gtgttgagcc tctgtcagca gacttccagg agtcagccgc cggtccgagc
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cttcctgctc atctccaccc tgaaggacaa gcgcgggacc cgctatgagg tgcgtgaagt
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cttcactata tgaaagaaac tacaagtgat gatcccgaca ctattagaag caatcttccc
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cttccaggag tcagccgccg gtccgagcct tcctgctcat ctccaccctg aaggacaagc
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gcgggacccg ctatgagcta agggagaaca ttgagcaatt cttcaccaaa tttgtagatg
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aggggaaagc cactgttcgg ttaaaggagc ctcctgtgga tatctgtcta agtaaggatt
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<210> 1248

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ggtcaacctg gcaaacgttc tacacagagc acacttctct gctgatgctg ctgtcgtggt
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acttccaccc tccaatgttg tgaatgcagt ctctagcatt cgctatttaa tgtcttcttc
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etgeactatt tgagaaateg egaggtegae ttaatacege agtegeeact tegeggaeeg
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      <212> DNA
      <213> Homo sapiens
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cccgagagca tccagtttgt gctggatgag gactcctacc tggtgcctga gctcgatggg
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gtccgcatct tctcccgcag cacccacgag ttcctgcatg aggttccagc ggccagcgag
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      <212> DNA
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ctggatctct gtggaaactg ccttgtggtg atgagagcaa accctgagac cactggggtc
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cctgagctga taagcaccaa ggcagtgggc cggagagagg agagatgttt aagaggtgtc
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      <210> 1252
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1252
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180

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      <212> DNA
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acaggcgtga gccactgtga cgggccttac atgcaatttt tatttatagc caqtattaqa
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gaattactag gaaatttcat ttttatattt agtgggagaa agccatctac agcatqtctt
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tgcagctgag gcagagtaag taggaaggag agaggtcagg gctgagatca qqqaqqtaqt
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      <400> 1255
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aaatagtttc aatggaatag gtcgaaagta aagggacatc actagagtaa atgctagacc
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ttccctctcc ttttattttt aqcaacaqca aaqcaqaaac taaqatctac aaqtqatcaa
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agagggtgat ccattcagtt tctgtgtaga caggaataat aataatacct tttacatatt
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                                                                       120
tgaagatgag tcattgagaa gcaccaacaa agtaaacaqa acqaaaqttt caqtcccqqa
                                                                       180
tgcaaatgga ccctcagtgg gggagatacc ccagagtgaa ctcatcttgt atttatcagc
                                                                       240
ttgcaaattc ttggacacag cgctttcttt tccacctgac aagatgccat tatttcaaat
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      <212> DNA
      <213> Homo sapiens
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                                                                     120
cctcctcggg aggagcagcc ccctcctgtg ctgctttccc cctcccttca atatgctggg
                                                                     180
geggagacce tggcetecaa agtgeaatte egggacceca aateecageg gacgeaccag
                                                                     240
gctcaggtgg cgttccaggt gtgtgtgcgc cctggctcct acaccccggg acccccttcc
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      <213> Homo sapiens
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      <221> misc feature
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                                                                     120
gacttgaace caccattett gnaactteet tgatatetet aattatggtt taggtetgee
                                                                     180
agtttggtat ggagcagaaa agaagatgta agctttctgg aggtagtagc tgctacaggc
                                                                     240
atacantata tnatctcang caatagcaag tccaagtagg actgatacag tatacacaaa
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      <210> 1259
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1259
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agaaaagagc tattcactac ccgagactat aagttttagc tgataaaaac acagcctcat
                                                                     120
caatagctat tgaatgaagc cacttgctga gtcagtaact gaatgtctat gtatgatatt
                                                                     180
tccagtatca tgattaaaat ggagccccga aatgtcatta taaggcctag ttgtggactg
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ggggcccaga tggccaagtg ggagcaactc tgaaaccatt aaataggagg agagagaaa
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                                                                    120
caggotgtga tgagtactgt acattggcaa atgtgccatg ctactagggg atggatgaga
                                                                    180
tcacagttta agcttgggaa gaatgagtga gacttggcaa agaagggggg acaagaatat
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300
     <210> 1261
     <211> 300
     <212> DNA
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120

atgttcctgt gttttattgc atgggaaaag gtaataagtg tcatcaataa cagccatctt

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aacatgetge aggaactgte aagtaacagt gattattgta aaaaacqaqe tttetaattt
                                                                        180
ccttgtcgct tacagagtaa tctaagtgaa aatttccaac gtcctatctt tacaaaqaaa
                                                                        240
caaatacatt tattitticc tctaatggaa gaacttatgt acatgaticc tacttqatqq
                                                                        300
      <210> 1262
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      <212> DNA
      <213> Homo sapiens
      <400> 1262
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ggaacgtett gggaaagggg agagettgae etceatetag gtttetttta tetggagaaa
                                                                        120
aagaacactt ttgaactatg taatgetteg ceetgaaagg caagetaaeg etaactteee
                                                                        180
aggtgacagt agcaggaaca aggaagggta atgtttccat gacagacact tgcttccctt
                                                                        240
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acctttttaa attatgttag agatgtatat aggtatttaa aggtcactgg gagcgtttct
                                                                        180
gattcccggc cacactttgc atttcaacac tcagcccgga aagatgctcg ttcgqttqtt
                                                                        240
ggacctettt cactecetge gtgtaagaag gtgaatcacg tgggaaaaag tgateettag
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      <211> 298
      <212> DNA
      <213> Homo sapiens
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      <221> misc_feature
      <222> (1)...(298)
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gtataggcat ctggtgtttc agcatacata actgaagcat gtgaaacagt atcatcctcg
                                                                       180
ttagtagagg aaaaccaaaa cccttctttc cgtcaaaatt ggatttgtaa ttaaattgta
                                                                       240
agcctcgtag gatgtatgtt ggagatttta agtctttcct tcggttctat gcaaaaaa
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      <210> 1265
      <211> 300
      <212> DNA
      <213> Homo sapiens
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gattttttga agaattcggg cttctttaag acgatccatg cccaaatcca caagcttgtt
                                                                       180
gacagtggat tacagtttgt gtggcaaagt ccaagttgtt acactgtgct ttaaaaaaaa
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tcttatctgc atgtattgtt aacttagaga ccatgagatc tatttatcag gaccaggaag
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agggcaaggg tagaaatcat gttccagaac tcagtgagag ttgtaggcat gaaagaggag
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      <212> DNA
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      <400> 1267
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gaaccatctg gaattcacag gcctgtcatg agagacacga tgagaagtcc ttaaaggtag
                                                                        120
atcactgatt cacaggggag caggcggagg caagggtgag tcagtgcttg gaactcagtc
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atccagattt ggctctggaa acttctgaag ctgtagcctt tggggatccc tgactgcgag
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tacaggaage caacgetatg tggtcttctg gaaactcatt atcttttca ctggtgctat
                                                                        300
      <210> 1268
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      <212> DNA
      <213> Homo sapiens
      <400> 1268
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cggcagggga gcagctgcag cagcaacacg tctcttgcca ggtcttcccc gagcgtctgg
                                                                       120
cccaggggaa tccccaqcaa qqqttcttct ccaqcttctt caccagcaac cagaagtgcc
                                                                       180
agettagget cetgaagaeg etggagaeaa atecatatgt caaaettetg ettgatgeta
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ctgaggcagg cgaattgctt gaacctggga ggcagaagtt gtggtgagcc gagattgtgc
                                                                       180
actocageet gggtaacaga gegagaetee ateteaaaaa aaaaacaaae caaaaceaag
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ttcccactgg tgatgcctgt ctgacacgtt ttggtattta gtaggaaatg aagtgtttcg
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<212> DNA

<213> Homo sapiens <400> 1270 ccgactactt gtgcagtttg ccctgctgag ccctcctcgc cccgggaggc agaaggggag 60 gggtcctcag caatatgctg agcacctcct aaacaacatc acctgaaaaa ggaacctaga 120 ggagagccat teteaaatet gateetggae tgagetegag agetgggttg agagetgggt 180 tgatcaaagt tgggattttg ctattattgt gacaaagggt ccagccttgc agtccagatc 240 ctgaaaggcc tgggacaagg ccaggtaatt tggggagtcc gtcctgcatt gtgcaggatg 300 <210> 1271 <211> 300 <212> DNA <213> Homo sapiens <400> 1271 cttgtcccca tggtcagagg agacccagct gtcctgcacc cccttgcaga tgagtatcac 60 cccatctttt ctttccactt gttttttatt tttatttttt tttgagacag agtctcactg 120 tcacccagge tgaactgcag tggtgtgate taggetcact gcaaceteca ecteccaggt 180 tcaagcaatt atcctgcctc aggctcccaa gtagctggga ttacaggcat gtgcaactca 240 cccagctaat tttgaatttt tagtagagac agggtttcac catgttggcc aggctggtct 300 <210> 1272 <211> 300 <212> DNA <213> Homo sapiens <400> 1272 aacatctcct cttgtcattc ctaggacata gacggttagg gaaactctca tctttccttc 60 accacctcat gagtctaaaa acaatgataa acccagggaa gcttgctgaa gagcatcctc 120 catttggtta ttgctctttg tctaggaaaa tcagactcag ctgtgaattg tggaccaagt 180 ggtgcagaac tcattacttt gaacaatgcc tcctcggcct gggaagcatg ttctctcttc 240 tcactagcag gggcttattc caggctggct ttggtcacaa ggaaaatcat ttagacacag 300 <210> 1273 <211> 300 <212> DNA <213> Homo sapiens <400> 1273 ggaacctttc aatcacttta actagtcact taaggactct aggcccagaa gcctggtttc 60 tgggtgaatg tttttataca tcactcaact tccctcgtcc taaaaggaca cctaattttg 120 ttactattga aaatttttat tttggtggcc agaatacgaa atcgggagag gtaacccaaa 180 cagttgtctt aggaaaaggc agattctcag aggcaatggg ctatcaacaa aataggtgct 240 aagcacattt gtttgtaatg atcattcata taatttagaa gatttatggt aacagtttat 300 <210> 1274 <211> 300 <212> DNA <213> Homo sapiens <400> 1274

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catcaaccat aatttttacq tqctctaata tgtttcttca cagattcatg ccatgttcag
tttaaaagag tootgttott ttaatacatt atotttgaaa tgootottac tgaggaatga
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ctaaacttct tctgaaatgt gctctctgga ttgaagtcaa gagtacatgt tgcaacaaag
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ataatcatga cttttagtat taagagacaa ttaccagatt gagtgctact tagaaaagtt
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      <213> Homo sapiens
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caagteetee taatgggate ceagaatgee catggaggaa geageatgtg caetgtgetg
                                                                       120
agtgctgagc aggatttcaa gagagcaaag gcagagatgc tggacagggc agcacaggag
                                                                       180
gacgagtgtg catggtcact ctgagcaggg ctggttcctg ggctggttgg agcacagcat
                                                                       240
ggggaactga aaggcagaca ctggccaaga aagtccttgt gcagggcttc agaagtgagc
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tcatcttcct tgaatattaa ttctctgttg cttcctccaa aaatggagaa aataatccct
                                                                       120
                                                                       180
acceteatag gettattata aggeteaatt atgataatgg tgtgaaaact ttgaaaatta
gacttcagag aaattgagtt aatctgggat tatttatcaa tgtcttagta accaaaagtt
                                                                       240
taaaatgtgt tttgtctacc aactggttgc atgtacatgg ttaatccaaa aggctcagct
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caaatctcaa cccaaacaac aattgttatt tttgtacatt cccttccaga ccccatttgc
                                                                       120
gagetetact geattgeeta tittgeaaate etagtageac aagaggacaa ecacaaacaa
                                                                       180
                                                                       240
cctgacattc gaagtcacac aagcgcaagt ttttcccatc atgcctagtt ggcaatcatc
ggctgagcag taaatcagaa ttttgtcccg aatgttactc acctgttagt cgcagccctc
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120

aaaaatacaa tggcttattt aaaatgtccc tatgcatggt gaaatgttaa ataccaagtg

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gatgaatggt teteaaatat attqtaatqq aqaattatte acatqcatet attqtttaaa
                                                                       180
ctaataagta aaatagactt cctttttctg ttctgtttta aatgtgcact aaaattacct
                                                                       240
gcttgtggtt aagcatgggc tggacagttt attgattttt
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tgttgcccag ggtggtctcg aactcctqqc ctcaaqcqat cctcccacct cqacctccca
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aagtgctggg attacaggtg tgagccacct cgcctgggcc cccttctcca tatgcctcca
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cgatgtgttt gaatttgaat tttcagagac ccccctctta ccgtgttata acatccaaqt
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atctgtgget caggggecac gaaactgget actgettteg gatgteetta agaaattgaa
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gcaaagccag ccaaagggga gtgagagggc agtcaagcgc ctagaagcca aggaacccca
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ggaggatggc atcgggcagg tgcctcctgg tgcccagaga caaaaagatg tgtgggaaqq
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tgacagaatc aagcggtaag gtcagtgctt tgagggagca ggcaaccacc agcctccagt
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      <211> 296
      <212> DNA
      <213> Homo sapiens
      <400> 1283
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tatccaaatt agacagtcaa ttccattaaa ataagaagtg agaaaaacaa tgttgggcat
                                                                       120
tgaggtgtaa attttgccca gatgtatacc cagtgtgaaa tatcttctaa taaaaatata
                                                                       180
tttggctctt atccctgcac atgtagaggc ataaaaattg gtaaacatgt cccgctgtgt
                                                                       240
agaactttaa aaaaaaggca tttttgaaag tgttgagtgg cactgataaa ctggtg
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agccatcgag ccattggcag aaatcctgct gaatgtcatt cagaaacctc agcccatggt
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egeceteetg tgeceetete etgeeggaaa geeetgeaac attetagggt tgggggeagg
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gccatccacg gtttctgggc agagccatgg tggcaggaga gagatggctg aagcctgagc
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agaaacagct ttcatacagt gcaaactgtc tacgtctatg taaaagaatt tgagaaacat
                                                                       180
ggcagtagcc attgctaatt aatctgggta tgtgtaaata gtttaacttg atttttgact
                                                                       240
ctqqtqtttq gatctatttt aagatcgatg gagttaattg cttcatgaca gttcttatga
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      <400> 1286
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acagttettt acatggetga tteagaaact tteattagte tggaagagtg tegtggeeat
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aagagagcaa ggaaaagaac tagtatggaa acagcacttg cccttgagaa gctattcccc
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                                                                       300
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geteeggatg gggaaggaaa aggtetggtt geetaaceae eteetteete ateeaaeeet
                                                                       180
gaaaccccca ggatgtggaa gaaaaacagg tagcattttg ctttcataat gcaaagacct
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catcacctgc acatgaaccg ctttcccccc atttcttaat catgaatttc tgtgtcttaa
                                                                       180
                                                                       240
attattaatg gotaagacta ggtotggcag ttaatttoto totootggat ttttggooda
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<210> 1289

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aagegagget geeegegeae ggegetggag taetgeaage teateetgag tetegageeg
                                                                       180
gatgaggace cectetgeat getgetgete ategaceace tggcettgeg ggeeeggaae
                                                                       240
tacgagtacc tgatccgcct cttccaggag tgggaggctc atcggaacct gtcccagctc
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ttccacttag aatttttgga ctttgttctt aatgaatagg ttcattttca atttcaaagc
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aaagtgttaa catttttgaa atttgtctca attctaaagg ccaaacttaa atatgtctcc
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tcctactggg gcatggagca agttattcat caaatacaga ttctcgcatg gaaaagaaag
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      <400> 1291
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tetgtteeca etteteecag aatageetag gatgggeaac eatgtaaaat teaataaaaa
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tccaaccttc taactaactc gtggtgttgg agagtattaa gcatttgaaa agttcaggta
                                                                       180
gaattttcat cctttttgag ctctttccta gctgctttgc tgtgatatat ctgtcactcc
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agatgaggga gtagtggtgg aaaaggaatg cattctcaga ttcattgttg gtagttcaaa
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      <400> 1292
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acgataaaaa taaaaatgta atttatatat ctgaatcagg tctgtatgtt atgatcaatt
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gctcagcaat ttcgggcagt tggtttgatg gttatgtagt aatgtagcct gagagcagaa
                                                                      180
atacagagec tetgggetag agaaagtata aatggeatec taggetatgt agggttacag
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      <213> Homo sapiens
      <400> 1293
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atgtagcatt tatgagcctt aaaaaacaaa caaaaaacct taagatgtta aatttattcc
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aaggattett tttttttgtt gtacatgaat gttcatatca ggtttatttg taatagccaa
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aacagtatac acctgaatgc ccaccaacaa gtgactagat aagcaaagta cggtacatgg
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tgtcctaccc aaacctgtgg ccgccacttt tgaattctca gattgccctg aattttgcca
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cttttaaata atgtgctgaa taagctcagc aactaaaaac cattacccaa gaacgtttct
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      <400> 1295
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agatgetttt cecaggeaca aattgggaat ggaaateace tagtteegtt cectetgaca
getgtaatee agagagetaa getgettaet teattagett ggtataaget gaegaeagea
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                                                                     120
atgaataaga aaatttgttg ctatttttct tcttccaaat tagaatctat atctctaaaa
                                                                     180
                                                                     240
atactttqca tqtttaqtaa acatccatct tgaacagaag ataccttgac atcagttcta
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      <211> 289
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
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      <223> n = A, T, C or G
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gttctttctt tgtaaaaaaa aaaaancggc nnaacaatnt tggcctttnt agctnggnna
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ccccnggccg gncaatccct nctnctctcn aagcctcggn ttcctcccct gaaaagtaaa
                                                                    240
                                                                    289
gaaaataact cctaaactgc ctcccnaggc ttgctggcag gatccaagg
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      <400> 1298
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                                                                       120
taacagaaag agagaaccta ggagttactc ccttaggctg gttaaagtga aaggtagcca
                                                                       180
agtcaaccca gcttgtttcc ttctctcatt aggaaagaac tattgttcat tctcataaca
                                                                       240
cactttttcc aattgcaaac atactcaggg ttaaaatagt ttagcacaaa ttgcagccca
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      <211> 300
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      <400> 1299
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atattgaaga ccacttaaaa acaaacaaaa aaacctatga aggtgcatgc tatttcccca
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gagctaaaaa gataagtgaa attgtgtttg aactcttaag tggaggtgaa gcagaattta
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ttagccacca accacataag tgattatgaa gtaactgaga aacaggtaac atttttccc
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      <211> 300
      <212> DNA
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gacttttttg tttttgtttt tgttttaage agtaccattg tgcaccttgg gaaaattcct
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gtgttgatct aattttacca tattcttcac tccactgacc actccaatta ggatactcct
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      <212> DNA
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tcccacagct gaggtctatt gtcatcgctc cacttctatt tttagcagca ctaaaaacat
                                                                       180
tcccaaaaaa aatgtttttt agctttttaa ctgcgattca ccactaagaa attggcattg
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gaacagtcca cagagettat tcaaatttca cccattttac atgcactcat ttgtgttgca
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tetgttetat etteecatea taaaaaaage tetgaggaac atgaatacag tgatgaaget
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cctcaggaag atgagggctt tatgggcatg tcccctctct tacaagccca tcatgctatg
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gatgtactac cagactggct caaggataat gacttcctct tgcatggaca ccggcctcct
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gtctgcattt ttttttaatt tctagccacc accataacta aatagcttga atagaacctc
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catcaatcat ttcacaaatg ttctgacttg ttgagcagtg ttcatttcca ggtttcaaac
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ttaaagtatc tattaagcaa tcttaaaaqa aaqaacaccq ccttaqqaaa aaaqaqattt
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      <223> n = A,T,C or G
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ggtgtctgtt tctgattctt atcacaactt gctacttagt gtctaccaag tcctccacct
                                                                       180
ctttgctcct caaagagctg tqaacactga tggcaggagc cgqcaccacn ccacnnactt
                                                                       240
agaganenne neanagetge cataenggeg atenetgaen teanaettee eeetetaa
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      <210> 1306
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1306
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                                                                       180
getteecett cattggeatt aatetggea ceagetetet ceatageagt gaetteecte
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accactetea teteteagee ttgeetttte tteetgacae tgtegeeece teeteteagg
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aatctgagac aggggcagag atggctgatt ttgatcttgc tggatcttag accatgagaa
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ttaaagataa tagaacaaga aagtacgttt caccatgaaa agccgttcgt catgatctac
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                                                                       180
caagaagccc tttgtggcct tgggaagtgg tgaagaaagc cccctggaag gctggtgact
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300

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agagaaatat tacagggcat gatcatttta ggttattaag gtgtctaact caatatgtaa
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actgctgaaa agaattatat gtttttatca gataatctca acatttcaaa agacaacaca
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      <212> DNA
      <213> Homo sapiens
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      <212> DNA
      <213> Homo sapiens
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      <221> misc feature
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aagccattaa ggcatatgta tagtatatca gtaaagatgg atggtgcata tataaatagt
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cttctgtaat agtgattgga tttacttctg gattatnaga gactcaaaat nttccccanc
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      <213> Homo sapiens
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      <221> misc feature
      <222> (1) . . . (300)
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gggttaaaac ctataaaact tegaagttgg atttaataat tttcaattac taggaaatag
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aggaggggaa gtctaaaaca ggagaaaagt tttagaaatc ctttggatta ggcttaccca
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240

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                                                                       180
ttcatttttg gattttggtt tgtgggaaga aagggttctc ttgccggtgt gtgtgtttct
                                                                       240
gataaacaaa gaagtgtgga agtggctgaa tgagatgacc caaggactct ttctqqqaaq
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1326
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tggctgggtg tggtggttca cgcctataat cccagcactt tgggaggttg ggagtttqaq
                                                                       120
accagcetga ccagcatgga gaaacceegt etetactaaa aatacaaaat tageeeggea
                                                                       180
tggtggcaca tgcctgtaat ccaggctacc tgggaggctg aggcgggaga attqcttgaa
                                                                       240
cccgggaggc agaggttgta gtgagccgaa atcatgccac tgcactccag ccgggcaatg
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      <210> 1327
      <211> 300
      <212> DNA
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      <400> 1327
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tgagccgaga ttgtgccacc gcactccagc ctgaatgaca gagcgagact ccacctaaaa
                                                                       120
aaagtaaaag aaaaaaaaga ggaagaatta gcacatttct attacagaat tggacttgaa
                                                                       180
catgcaaaat catgtctgga tttctcagtg aaaagctgtt ttacgttagt ggactcttct
                                                                       240
aacattttga aatggtgatc tggatttggg atctggctat cactgaccca ccttgggtct
                                                                       300
      <210> 1328
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1328
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gaattttatt caagaataat ggctagccat tgaagagttt aaagtaggga aacagtgctt
                                                                       120
tettatteac attttgcaaa gttetecatg ggetactatg tgaataatea gtecaagggg
                                                                       180
gaggtaagag tagaagttgg gagactagtt acaaagtcat tgcagtttgg agattatggc
                                                                       240
accttggact gtaggtgata gggatggaga tgacgataag tgaatatatc cagaaaatat
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      <211> 294
      <212> DNA
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      <400> 1329
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gtcagaatgg ggaaagtggc aggatgcagg caaacatgtt cttaatttag agacacgatg
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aaggeteagg aettteetag geagataaaa gaagaaagaa getgettttt gaaaagaggg
                                                                        120
atcaagatta tgacaaaaag ggagattcag ccatcagcag aacccaaatg agagcctaca
                                                                        180
aagagacact gtctactcag agtacatctt cagacatcca gggtcccaag ctactgtgtt
                                                                        240
tactgttagc ccttatccat tgttatgtct tactgcttta taactcttct ttaa
                                                                        294
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1330
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ccagaattgc agaatttacc tcaaqaactc tttgctgttg acccaactac cqtttcacaa
                                                                        120
ggattgaaag atgaggttet etacaagtgt agaaagtgea ggegateatt atttegaagt
                                                                        180
totagtatto tggatcaccg tgaaggaagt ggacctatag cotttgccca caagagaatg
                                                                        240
acaccatctt ccatgcttac cacagggagg caagctcaat gtacatctta tttcattgaa
                                                                        300
      <210> 1331
      <211> 298
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(298)
      <223> n = A, T, C \text{ or } G
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atctagttct tagctggggt ggacaatttt gaagctcgaa tgacaataaa taccagcttg
                                                                       120
gaatgaactt ggaacaaaca tggatggaaa tctggggtca agggaaaatg gcagtttcag
                                                                       180
gggaatatac caggttaata aatccnggaa aaactgnttg gtttgngggg gnctccacca
                                                                       240
cttggaagtt gctgnaanna ttgatgnaaa gaactctgaa annaaaaggt gttgggca
                                                                       298
      <210> 1332
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1332
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                                                                        60
gctagttagt tacttotoat catteggget taggttaagt gtttcctcct tagagttctt
                                                                       120
cettgattta tettececce agtetaaagt gecagteaca ttaatetgtt ttatttetee
                                                                       180
atacagcact catcactgat titttaaaaa totatittqc catcittctc totcactqqa
                                                                       240
atattatgtg ctcatgaaga agctccttgg ctattttgtt cctgatcgtc tgcgctgcat
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      <210> 1333
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1333
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caaatgtgaa tagtctattt acaaatgcta ttacatatgg agcgggcctg tgqtqtatgg
                                                                       120
cactatteet tggactaatg qtacecaggt tecattetet geteageteg gaggetetag
                                                                       180
```

```
acaaagcccc taaaatqctq totqcttcaq totccttaat qqtqaagtgg aaatgaatac
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ctactgtcac ttaactcatq qaqatqctqq actqataatt agatcatgta agagcacttt
                                                                        300
      <210> 1334
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1334
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                                                                         60
tetgggggee acacagetge tgaggeggeg ggttgaggeg gecegaaagg acceagggtg
                                                                        120
ctcaggcctg gttgtggata gcggcctgtg tggagaggag ctgcttgtag gcagtgagga
                                                                        180
ggcggacagc atcaccttgg gccggtatct ccggcagctg gcacgccatc ggaacttcct
                                                                        240
                                                                        300
gtggttcgtg agcatggacc tggtgcaggt gcagtggctc acgcctgtaa tcccagcact
      <210> 1335
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1335
caagaagaaa catggcggct atcettetet cacatcgaaa aggaaatttt gaacaatcat
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ggaaaatcta aaacgtgctg tgaaaacaaa gaagagaaat gttgcaggaa agattgttta
                                                                        120
aaactaatga aatacctttt agaacaqctg aaagaaaggt ttaaagacaa aaaacatctg
                                                                        180
gataaattot ottottatoa tgtgaaaact goottottto acgtatgtac ccagaaccot
                                                                        240
caagacagtc agtgggaccq caaagacctg ggcctctgct ttgataactg cgtgacatac
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      <210> 1336
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1336
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tggcagagga attgtgccag acatctgtgg attttgctac ccagcagcat tcgctcttct
                                                                        120
cotgqttqtq qqqccccaqc cctqttqcta ttacctqqaa ctaaaggtta agatqatggt
                                                                        180
tcaaagatga agccaccatg gaagagagca tagcggacag atggagagaa actgcatcca
                                                                        240
ggtgacccca tttqtactaa acctqqttac ctggtttttc tttagtacat atgccagttt
                                                                        300
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      <211> 292
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(292)
      \langle 223 \rangle n = A,T,C or G
      <400> 1337
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aaaatactgg aattattaaa acgtatagta tgctagctat ccttttaaat tatgctaatt
                                                                        120
ctcttcttct gaaattatgg tcacactata tactatagca tttcggtttt atcctttgat
                                                                        180
aaaacttttc ttttttcttt tttttttga aacagggtct naccccgtcg nanaggctgn
                                                                        240
agngcagggg caaagneten actnantgea geettgaeet eenggneeea gg
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<210> 1338
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1338
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atctagcaga atgtaccttt atttgattca ctatttacca ctgattaaag tggagcqtct
                                                                       120
gtggagttat acgttacttt gtagactttt gtctagtgaa atacaaaaga caaccccaaa
                                                                       180
ggttataatt tttttgccta tagaacattt caggaaacag gagtaggatt tttgtctata
                                                                       240
atatagcaaa cttgcttcaa cataccttcc acaacttaca aatgctcttt gaaccagcct
                                                                       300
      <210> 1339
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1339
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ctetgttgtc etetgtgtgt gtteetttgt eetgateett gteaeettgt gggteeaaaa
                                                                       120
tggttccact agcctcatgg agcctggcct tacattgcag agtccaaagc aggagctgag
                                                                       180
ggaaaatgaa aaacaacttc ttcatcaccg gaagcccagc aaacttctcc ttaaaaatca
                                                                       240
ctggtcaggg ctgggtgcag tggctcacac ttgtaatgcc agcactttgg gaggctgaga
                                                                       300
      <210> 1340
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1340
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gtcagtgaag gtcatgattc tgaagatatt ttgagcaaaa gtaacctgaa cccagatgcc
                                                                       120
aaggagttta ttccaggaga gaagtactga gccgagaaag ctttgaggaa gacttgtctg
                                                                       180
tececacate tggggatagt aatgeacaaa atggtggage tgaagagggg gatggggegg
                                                                       240
gcgaggggtg cacagcggga aggggagtgg tggtctcaca atactgtgac tctgagtaac
                                                                       300
      <210> 1341
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1341
ggccttccag atogtgctgt cccacctacc tgcaccgccg aggccttcca gatcgtgctg
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teccaectae etgeacatet gecaeagetg geeetgggee caececaega agggeetggg
                                                                       120
cetaaccect tggcctggcc cagettecag agggaccetg ggccgtgtgc cageteccag
                                                                       180
acactacetg ggtageteag gggaggaggt gggggteeag gagggggate ceteteeett
                                                                       240
ggggctgccc ctgtggaggg ggatcccgcc tctagaacta tagtgagtcg tattacgtag
                                                                       300
      <210> 1342
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1342
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120

aattgaataa cataatttat gtgaaaacac ttaattatga atgctgtaaa actatcaaag

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ccattaatat gtgttatagt agcatcatac attttgcagc ataatccaga gaacaaggag
                                                                       180
                                                                       240
ttgttaacaa gggagaggaa qataatctgg ttgggctagt attatactct caggtgctac
tgacttetta gatgacette aagatgttag tacaactete tacttggaga tgetatttte
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      <210> 1343
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1343
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tatgaagtta gtgaagtcag ttgaaatgtg tatttaaaca tttgaaggga tacagttaac
                                                                       120
attittitaa tqaqaqqaaa ccattqtctq taqttcaqaa ataaqatqqa qtqttttact
                                                                       180
tatttaaggg gtaatttaaa aagtaaacaa aagcattggc ctacaagaga aaggtgatgt
                                                                       240
tggattataa gtgctttttc taatcgttaa tattaatcaa caggtgagta tattttccgt
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      <210> 1344
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1344
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gcataggagg gaagttaatc cagtcttaga tcagcagggc tgagttcttt ctcagaacca
                                                                       120
tagttgaaaa agcctaaata gaattttagg aaagttctat ttagaaagaa actaagaatt
                                                                       180
atgattaagt tttggcctaa gcaacttaat aggcagtggt atcatttatt gagaagcaaa
                                                                       240
tcagataaga agcaggttat ggggcttggg aggaggtaag ggcagaaagt tgggtattct
                                                                       300
      <210> 1345
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1345
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aagtggaccc tgacaaattc aatattgtct gaagagacaa tctattctgg ttctgttgga
                                                                       120
cttcagggta tttttctttt tttgtaaaat gaaaactaca aagaaacctg acttttcaat
                                                                       180
tttttataca tgtaattttc taqaaatcta qqaaqtcatt tacacatcct tatataccat
                                                                       240
gaggggcaaa agtaagcttt cttcctccca aagcaaaact ctttttcctt aaggagctgg
                                                                       300
      <210> 1346
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1346
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                                                                        60
gatgtatate ttaagegeee eeagtgaatg aacageatat aacteeacat aaaaateatt
                                                                       120
aaatgtaatt gacttccaga gcaggcagtt ctgttgtatg cctctggaga aggctggctg
                                                                       180
aattggaatt ggtctgtacc ttctgcctat catgtacatg aggtttttgg gcaaagagaa
                                                                       240
ctttccacaa aataagtcca aaaattatag atcatcagac aaccaataac atattgatga
                                                                       300
      <210> 1347
      <211> 300
      <212> DNA
      <213> Homo sapiens
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tgtcctgctt ccgagaaatt gatgagctaa taaaaaagga aaccaaaggc aaaggttctt
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tggaagtact caatctgaaa gatttgaaga aggagatgag aaatttgaat gacacccatc
                                                                        180
agtetettea cetetaaaac actaaagtgt tttegtttee aacagcactg ttteatgtet
                                                                        240
gtggtctgcc aaatacttgc tcaaactatt tgacattttc tatctttgtg ttaacagtgg
                                                                        300
       <210> 1348
       <211> 300
       <212> DNA
      <213> Homo sapiens
      <400> 1348
gggatccetc cetecacecg ecceccagee cegggacece gagtgecact ecagecteae
                                                                         60
cccctgccag tgccactcct agccagcgcc agtgcgtctc cgcaqccacc aqcaccaacq
                                                                        120
actecttega gataeggeeg geeceeaage eagttatgga gaceatecee ttgggggaee
                                                                        180
tecaggeeeg ggegetggee ageeteegeg caaacteteg aaattettte atqqteatee
                                                                        240
ccaagagcaa ggcctccggg gctcctcctc ctgaggggag gcaqtccqtq qaqctqccaa
                                                                        300
      <210> 1349
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (300)
      <223> n = A,T,C or G
      <400> 1349
aagaattgna cgactcttat tgatgagtgc aaaatttttc tatagatttg aaagtcacta
                                                                        60
ctaatcatga ctagctgatt ataataattg agagtaaact tttaaaatta ttaaatatcc
                                                                       120
tgtgaaagtt ggagcacagt aaccattaac cctaaatttg atactatgtc catatgaatt
                                                                       180
cagatcataa tagtgctcta tcatgtgaaa ctactaaagg atgtatagag ttaaatatta
                                                                       240
cgtatccact ttaatgaaga ataggtatta cacagtaatg gttgtttaaa aaaatttttt
                                                                       300
      <210> 1350
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 1350
gccctgtgtt aatccaggtg agaacaggta gtacccaaat tagggcatgg tagcagggat
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gcagaggaaa gaagaggagt aggaactatt tgggaggtag tattactagg attttagctt
                                                                       120
tgaagggttg agagaaatgt caagcctaac tacaagcaag gtttctagta tcagtaactt
                                                                       180
catatcattt gaaatacana nattagcaat caatgtatan ancntnctgg gctaancnta
                                                                       240
gcatgaantc tgacttcant gtagcattga ggagggtcct ggcctcagat actgcaccag
                                                                       300
      <210> 1351
      <211> 300
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<212> DNA

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<213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) . . . (300)
      <223> n = A, T, C \text{ or } G
      <400> 1351
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gtaaggcagt gtcttgactt ggaaaggatg tgttaatggg gtgactttgt agcatggtat
                                                                        120
gttgtcttga gttaactgta gtgggtgggg aggtccaatg ccctccgcaa tgcccttcat
                                                                        180
ctcctgtgtt gtcctgtacc ctgctcagct ccatcctggg gttcagggaa ggcacacttc
                                                                        240
ccagcccagc tgtgttttat gtanccgana tanagngnng tccgattcaa nntcatncac
                                                                        300
      <210> 1352
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1352
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                                                                         60
ctctgctggg ccaaggccat gcttccccag cctgtggctg cgcctctgct gtctctccgg
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gtctcacctg ggcgggaggc tcctctggag gccaggacct gccttgtgag ggtgcccttg
                                                                        180
tgggagaggc gcttgcccaa acctgctgtt ccccgggggc tccttggtgg cccccaggac
                                                                        240
tggagetete tgecagagtg eccetececa gaggttagga etcecatgae ectgtecect
                                                                        300
      <210> 1353
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1353
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aattctatgt cccagttttg gttagtgtgc tctgggattt ttgacccatt ccatagtaat
                                                                        120
agttattact actaccacta cagtaaattc ttacaagaac tttccatgtt ttttqqqaqq
                                                                        180
aggaggagga gtagttacat tcaggatcat atacataatt gtttagcttc agttctgtat
                                                                        240
ttatatatgt cacttgtaac tgactgggat acgttctgag aaatacattc tcaggtaatt
                                                                        300
      <210> 1354
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1354
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ggtccaagat ggccatccag acccagcagt cgaagtttgt gaactggcag gtggacgggg
                                                                       120
agtategggg etetgaette acageageeg teaccetggg gaacceagae gteetegtgg
                                                                       180
gttcaggaat cctcgtagcc cactacctcc agagcatcac gccttgcctg gccctgggtg
                                                                       240
gagagetggt ctaccacegg eggeetggag aggagggeac tgtcatgtct ctagetggga
                                                                       300
      <210> 1355
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1355
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gattccgagt gtttactaag cctgttgacc ctgatgaggt tcctgattat gtcactgtaa
                                                                         60
taaagcaacc aatggacctt tcatctgtaa tcagtaaaat tgatctacac aagtatctga
                                                                        120
ctgtgaaaga ctatttgaga gatattgatc taatctgtag taatgcctta gaatacaatc
                                                                        180
cagatagaga teetggagat egtettatta ggeatagage etgtgettta agagataetg
                                                                        240
cctatgccat aattaaagaa gaacttgatg aagactttga gcagctctgt gaagaaattc
                                                                        300
      <210> 1356
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A, T, C \text{ or } G
      <400> 1356
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                                                                         60
tacacgtatt caggaaagac cccaatgatg cntganaact tctactttgg ctncctaang
                                                                        120
ntgaatncaa ttcacatctc tnagaggntc accgtaaaca gntttggann ctacccttna
                                                                        180
tntggacana ttganttctc ctgaggtgga tcttgtatng ctctagaaac tangcatcnt
                                                                        240
                                                                        300
caccatgtgc tgaataanag tgtnntcggt gtaatngccg cgcacgtatg nnnacatttg
      <210> 1357
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1357
                                                                         60
ccataaqtga cttqcaaaqq qcctccccca taggaaggcc tcagcaaatt ttcagtgaac
tcaagttcat tgatttccaa tttgtgaaat aaactagagg gcctctctga actacctgcc
                                                                        120
tcatgagaat gactgtgaag tgtagtcagt ttaaaacaaa cagacaaaaa caaagctaga
                                                                        180
cagcattaca ggtttctcag aaagaaggaa ggttcaagtt cacattggta ctggtaccac
                                                                        240
                                                                        300
gttgccattg ccctcctaga ctgttctctg caagctttct atttactgga ggctggaata
      <210> 1358
      <211> 86
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(86)
      <223> n = A, T, C or G
      <400> 1358
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                                                                        86
tggacgtgnc nggggacggg gggact
      <210> 1359
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1359
ggctgtgttg tgtgtcttgt ttgatgtaaa gatagtttct gtaatagttt tgcagtttga
                                                                        60
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caggcacaca aaaacatttg cctttgtact ctgccaatgc ttgatttaat tataatacac
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atcataggaa tttctgtttg aaggcataat gagggttaat catttttcat aatagatgtt
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tatttatata tgccagcagc tctccaactg tggtctgcag atctcatgag gtctcctttc
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catttcaatt cccaaaggcc ccacctccta atattatcac agtgataatt qqqttttcaa
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cacatgaatt tgagagaaac acattcagtt cctagcatta gcttgcttat atttatttca
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attacctgtt aaatttagta tagtatagta tactaaaaca gtatgtttac aaaattqaac
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tcactgtgca gatattacag gttttattca tgtaacacta tagagtgtct attgtcacat
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actactaatg taaaatagta ggctatatgt tgggatgtgt atagctatgt cttcaagact
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aatactcaga gaatcaaatt gtagattgta cctatctgtg agcctatttc tttagccagt
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ttgagaaata ccaagaagcc caagaagaaa tcatgaaatt aaaagacaca ctaaaaagtc
                                                                       180
agatgacaca ggaagccagt gatgaagctg aggacatgaa agaagccatg aataggatga
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120

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gtttgagaaa taccaagaag cccaagaaga aatcatgaaa ttaaaagaca cactaaaaaag
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tcagatgaca caggaagcca gtgatgaagc tgaggacatg aaagaagcca tgaataggat
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cagtgagcta tgatggcact actgcacttt agcctgggtg acagagtgag accctatctc
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acaataaagt aaaataagaa ttaacacact cataataact atttagttaa taggaaactc
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tgtttaagcg atattgctta tatttctctc tcatgctttt gtaggtctgg actcatcctc
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      <213> Homo sapiens
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tgactgcttt ggtgccccct gactccagaa tcaacaccac accagctctg cctttagact
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ctgcccagag gctctgggct ggatactgta tttggtgcga ccctctgggg catttttgca
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cegecaagee atceagggeg agetqqaqet caggaggaag aeggatgetg ceateeggga
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gaagetgeag gageacatga cetecaacaa gaecaceaaa taetteaace ageteateet
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      <213> Homo sapiens
      <400> 1377
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gatgteteat aagaaggtgg eeccaggeaa tettagaace ggacaacagg tggaaacaaa
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gtcacagcca cactecetgg ccacagagac cagaaaccca ggaggacagg aaatgaacag
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aacggagctg aacaagttca gccacgtqqa ttctccaaat tcggaatgca agggtgagqa
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tggtgcctac cctgggcacg gaccqtctcc tccttgcttt cctccttacc ctctacctgg
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ggatatgaca ttaaaaacta acttgaaaat tgttaggata tttccttgtt ccctactttt
                                                                       180
attgtaaaat ctactacatt cttaagaatt aaaaaacgcc atttcagaag agatgatagt
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tttatcttgc caaggaatta tcttcttagt agcctatatt ggcttattcc aaaaaaqqcq
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cacactaggg aaggggacca tctgctactt tcatattagg atgtcaggat ttagaggtca
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atgtgtttcc tcatcaagge tgaaggettt gggaateegg ggaagtqtca qqetecaaqe
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ttacaggcat gagccaccac acctggccac agaagggatc atttctaaat agcatagaat
                                                                       180
cacagggagt acacctcatg tgacttcacg tttagagtca gcatttgctc ataatgaatt
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acatatcagt aaatqaacat qacatqcttc aacttcaata atattaaaca aaactctttc
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1382
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atgcagccat gacactgaaa tttgtttttc attcattatt ttttcattct tacaataaac
                                                                       180
gtggttttat aagttagtta aaaagtcttt ttcaggatgc cqtagtaaac aagagtccct
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tttgagcatt tccttagtaa acgatgaatg gctgctggtc aagcttgttc tggcaagtct
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<210> 1383

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qtecetqact catetteete tetgttgeee tttaaacagg tgagcaceta geettgttgg
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ttttatqtqc tcaacagcag ttgactcccc tggctcctct cacccatgct actgcgtagt
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caaqccctcc atagtctcct ctctggtctc tgtttcccat ctgcctttgc ctttccctct
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      <400> 1384
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qtaaataqct tttaaaaact gatqqqaaat gctgtttgga agtggaattg ttgaaccacc
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tgggaggtgg gagggaagaa attgcaaatg gtgttttgcc attgtttatt agaaaatttc
                                                                       180
agettaatee attgtgtata tgttaeatge attteattta aetttgetat aetgtatata
                                                                       240
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      <213> Homo sapiens
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      <221> misc feature
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acaggtgcaa gntctggana ccttttgctg gaataacctt gntttttttg tncctntttn
                                                                       180
nanntttncn nttttcnntt tncttnagna ntttnttnnn tgtttttntn nttnntnnnt
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tnntgnnttt tttnagctct nnttttntan tttttnttn tntnttntan cttttttatg
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cacacctqtc tqtqqctttt gatgagcatc tgaatgcagg ccaaacttgg cctgccaaac
                                                                       180
agtttctgcc gttgtttgta ccagttcaca ctccctgcca aacagtttct gcaatgtttg
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      <212> DNA
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agaaagccag acatcagaac tcactgcctg agcttgaagc agcagaggcg ggagccccag
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gttctggccc tgtggacctg tttcgggagc tgctggagga agggaaagga gtgatcagag
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      <213> Homo sapiens
      <400> 1388
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ttgttcttca aacctggtag tcagtttttg tattcaactt ttggctatac cctactggca
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gccatagtag agagagette aggatgtaaa tatttggact atatgcagaa aatattecat
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gacttggata tgctgacgac tgtgcaggaa gaaaacgagc cagtgattta caatagagca
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ttcagaaact accagtggca tcacatctta ctcagagtaa aaaccacagt gggcttactg
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taatattttc attttcttct gttattctta gatcctttgg tagattgtaa actccatgaa
                                                                       180
agcaggatac cttcttttgc cctaaggctt ggcccaaaag agataccaaa aaaatacttg
                                                                       240
cttatatact aacctagtct ctgggtgtgg gagccataga gggttcaggg tggggtggtg
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      <212> DNA
      <213> Homo sapiens
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aaatgataag tcatatatgg ccggtgagtt tttcttccaa agactggtcc acactagagg
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gtgcagcete cacagacact gggaattgct cetgacetat ggaaaacaac tttettteca
                                                                       180
agaaaattat ttttagtcct ttggtgtaaa gacacagtcc tgagttgttt tcacttactg
                                                                       240
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<210> 1392

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<211> 300
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tacacactaa aaaccaaata tgtgatctcc agcatcacag aaatgaaata aggattttt
                                                                     180
tttaacttag gtaatattgc ttgaactgta gtaattcaaa tgtagcaatt tcaaaggtag
                                                                     240
aatttcccat gtattactat actgcttcac atcagctcta ttaataaaag tagaacagtt
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      <212> DNA
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ggagttttat gcctgtacca gcagaggttc agctttccag gaatctcatc atgatccata
                                                                     180
ctgctgacac aggcctttgt cacctgaagc attcttaaaa taaggagact gacattaaac
                                                                     240
aggacaattg tgaactccac tttgtaagca tcatacatat cttacaactc attctqaaqa
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1394
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321

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180

240

300

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gatgcatgcg acagcccatg acccgaggca ttctcagggt atctgtgctg tgtgcccgtg
                                                                       180
                                                                       240
agaacatett cecatgacca etectgeeet cetgeeeegt getggatett cecteeceag
etgggatetg etcecaggea actgtgtgaa ttttacatta tttggageet catetgtgte
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taatqaqctt qcaqccaaca tattttaqct ctatcaaaaa atgcctgtta gtgctcacgg
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gcatgtactg cgagagagat cttgaatgca tcactttggt atcctaagaa gtgtaatttt
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tttccctcgt catactgggc tgtgtttaga cctcgtataa tacataatga atagaaacag
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taaatatgtg taagtaaaat aaaatgqtaa cttgtttttt ataagagggg aagttggttg
                                                                      120
gttttataaa ttaaatgaac atttatgcgg tcggttattt ttacgtaaaa atagttgtta
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tattctaggg taacaqaaat ttaqaaacct atttttctgt agaagaaagg tgttgctatc
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                                                                        120
gattetgact taacccactg tttgcccaca tettgageet tggtttccct atetgtaaaa
                                                                        180
tggcagtatt ctcgggctgg ctgaggaaag gaaatgaggc caggcgcggt ggctcaggcc
                                                                        240
tgtaatccca gcactttggc aggctgaggc atgtggatga tttgaggcca cgagtttgag
                                                                        300
      <210> 1434
      <211> 139
      <212> DNA
      <213> Homo sapiens
      <400> 1434
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tggtttcatc atgttggaat tcgatcacac cattttcaaa caatgttaac atagtccagc
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ttttgttccg tttagggga
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tggggtgtgc tggggttggt acccgagcgc cttcccctca cctcaaccag agaagagcat
                                                                       120
ccggttgctt tttaaagctt ttagcctgcc ctagcaagga caaagcatgt tagattagag
                                                                       180
atgettetge tgategeagg ggttettatt tgaaaacate tatgatgggg gaggtgtgg
                                                                       239
      <210> 1436
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ccttcctctc attttatatt gactgtttgc cagaaactgt tttcttctgt tttcttatat
                                                                       180
tttgtttttg agatggagtc tcactctctc acccaggctg gagtgcagtg gtgcaatctc
                                                                       240
ageteactge aacetetgee teetgggtte aagtgattet eetgeetegg eeteetgagt
                                                                       300
      <210> 1437
      <211> 300
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      <213> Homo sapiens
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      <221> misc feature
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gggcaggaat taatatctcc attttacaac tgaaactgaa aattagagga cttcaatgaa
                                                                       120
tgaaaaatct gagtagctta tcctaccaag tggcagatta gttcatgatt ccttattaag
                                                                       180
tgataggact tgccaaacac caggaatctg gggaagaagt gtactcaaag aagtatgctt
                                                                       240
ggaccaatct gaaaaaagaa aaanaattna gttcaaactg attgagtaac nattcacagt
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                                                                        120
gtaatattgc tetgttgecc aggetggagt geagtgqtat gateteacet tactqcaace
                                                                        180
accaetteet gggtteaage gatteteetg eeteageete eeeagtaget gggattacag
                                                                        240
gcaccagcca ccatgcctgg ctaatttttt tgtattttta gtggagatgt ggtttctcca
                                                                        300
      <210> 1439
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      <212> DNA
      <213> Homo sapiens
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tgactgtggg ccttcaagaa gaggttaaaa tacattcatt atattaacga gtgcatctta
                                                                       180
caaagatttc tttcaaaaag tacttgaagt ttttttgctt taaggagtaa atctcaatca
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tctggaaatt taacttctgt ggaatacctc tttacatctt aaaggaaatg ttaatgcatt
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      <210> 1440
      <211> 300
      <212> DNA
      <213> Homo sapiens
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gaatttotta ttggaatgta aacgtggtto taattttaaa tagacagtga tataaaqaat
                                                                       180
aaaaagtaaa cagtgaaatt gagttctcca gggaaaaggc agacctgttt agtaaaaaaa
                                                                       240
ggatgctttt ttcagtgatg tctttttttg agtgcatatg tgtgtgactc ttgaagaaat
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      <210> 1441
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1441
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aaatgccgtc cctgtcttag atctcacggt ctactggagg acacagagaa gtaaqcaqqc
                                                                       120
agttgcagta caatgtaaca ctgagtgctg tctgtgtatg atgctgagga gggaggttag
                                                                       180
cctgagccgg ggaagcggag cttgcaatga tcggagatcg cgccactgca ctctaqcctq
                                                                       240
ggcaacagaa caagcccctg tcttaaaaac aaaacaaaat cttcagagca ggcttaaaaa
                                                                       300
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      <211> 297
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (297)
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atcaccggag gtcaggagtt cgagaccagc cttgccatac atagtgaaac cctgtctcta

ctaaaaatac aaaaattagc cgggcatggt ggcaggcacc tgtaatccca gctactaggg

aggettetga acceaggagg cagaggatge agegagetga gategegeea etgeacteea

60

120

180

240

300

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      <212> DNA
      <213> Homo sapiens
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gccccctccc atccatagtg catggtgtgt ggtgccccca gggctccagg acagatcagg
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ccccaccttg tgtctacccc catccccgct gtgaacgtgc cactgaataa agtcggggaa
                                                                     180
240
aaaaaaaaa a
                                                                     251
      <210> 1448
      <211> 300
      <212> DNA
     <213> Homo sapiens
     <400> 1448
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caacttttta aaaaaattaa taacagtagt tttatgaaaa ctaagtaaga aaacagtttc
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cacctatttc tgaggtctcc tttagaagga gtaacagaca gcttttattt ctcttaaagt
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tataaaaatc acaatcgcaa gtcacaatga atactgggaa gggaaattac ttttgcagag
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tgatcaagta aatgatagcg ggggctaaac ttttttagta aacttgtgaa gattacatac
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     <210> 1449
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     <212> DNA
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     <400> 1449
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gagctagatt tgaaggatga ggagtagcag actagtcaaa gaaagggaga gaagaacata
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cctaaacatc tgatcaccag tgactgagaa agttatcagg atcaagtgga aagagaaagg
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actagcagag ttacaggtta gagaaacagg taaaggctac tatggacggc ataatagttg
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cateccatgt titgtetett aagaacagtt geaaactatt gaaggttita aagetgtgtg
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     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1450
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caacgattac ctccacaggg tcccttccat tgtcctcctg catcattttc ctccaacttg
                                                                    120
aataaatgtt ctacccacct tteteettta ttttetetae ceeetgtace eegeteeete
                                                                    180
tcacaattaa ctctacagca gaatgtgaat tctctgattt tagaataact attttatggt
                                                                    240
aacttcaaat atatcctagt tgtatccaca ttcagcttgg gtaggtacct tcatagtagc
                                                                    300
     <210> 1451
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gcagcagcag ccacactece accatectea cagaatteet ggacceatge ggtggeteeg
                                                                    120
tgagetgggt gaetecagee teacetgeae accoeageee tgeaegggge ceteetteet
                                                                    180
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cccagcagcc cttggtgagc taggaattga gatccctgtt tgtgaaagag ggaactgagg
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tgcagagaag ccagaggtgt gccagatcct taggcaggat ttagatgaag tcgccctggc
                                                                        300
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caaacgtaca cattctgtac atgtatccca gaacttcaag ttaaagaaaa aaagaaaaat
                                                                        120
atattagttt agcaacattc aaccttatcc tatataaatt atgctaagaa ctttgttaga
                                                                       180
taaattctat tataaaaggt cctagctagt agtattaaat ttgttgttgt tgtaatttat
                                                                       240
gtacaacaaa attcacccat tttaggtata cagtttgaat gctttttggt aattatataa
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tatttggaaa taaaaattgt atgactatgt atatgaaact tgttcatgtt ctaaaaaata
                                                                       120
ccctccattt ataatatgtt tttaaaattt gccactgaga agtacaaatt tccttcttat
                                                                       180
ttcatcttag ttatcaaccc agagtcactg gaggcaatgc agtgtagtgg ttaagcgtgc
                                                                       240
agattetgaa gttagacaag atttgggttg gaatcetgae tetgecaett actagetggg
                                                                       300
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ctgttttgaa gtaatcaaat gctgtgcatg gtattttacc tgagctgcaa cctgttatgg
                                                                       120
acttgaactt ctgtttaagt tgaaagcaag agtccctgag tataaaggaa aaacagcaaa
                                                                       180
acaaaaagca aacaaaaaaa aactgcaaaa gtctaaaata cccattggtg atgtttttta
                                                                       240
aaaaaatett gettteaget tteaggagtt aatattettt gttttaattt gataattgga
                                                                       300
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      <221> misc_feature
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                                                                       120
cccaggaggc cgatgctgca gtgaactgtg attgttccac tacagtccag cctgggtgac
                                                                       180
agagaaaaga aaaagaaaac attacataat ttggctagag cataataatt tgattttctg
                                                                       240
gtttttgaaa atttgagttg cataaaagga nnnnnnnnn caaggnttct acaaggnngn
                                                                       300
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      <211> 300
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                                                                        120
tgagtggagc agtgtataaa gaggtaaggt ttttgaggga aaaaaatact atqtcaaatq
                                                                        180
gggggtgaat gataaaaatc gctctcattt tccttttttt cacctttcat cttcatttat
                                                                        240
ggaattteta tacaataaat atgtttggca tttaataaca gtgcctctcc cccggaatac
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      <400> 1457
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gtcgtatgtt attacgggga gctggaatcc aaaatcccca cattttcaag ttgtaaatga
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agaaactcct aaagataaag tootgtttat gaccacagct gtagatttgg taataacaga
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agtacaggag cctgttcgat ttctcctgga gacaaaagtc cgcgtttgct cacctaatga
                                                                       240
aagattattc tggcccttca gcaaacgtag tactactgaa aatttctttt tgaaactaaa
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      <212> DNA
      <213> Homo sapiens
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agaaaaaagc atatcttcat tgacataaca gaagtgagat ggcccagtct tgatacagat
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ggtaccatga tatatatgga gagtggcatt gtgaaqataa catctttaga tggtcatgca
                                                                       180
tacctctgcc tgcccagatc tcagcatgaa tttacagtac attttttgtg taaagttagc
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cagaagtcag actcatctgc agtgttgtca gaaacaaata ataaagcccc aaaagataaa
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      <400> 1459
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gaggaaatga tgatcatctc cattgaatga cagctgttat atagcaaaga taaatgtaaa
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attagtetta ttettggaag tggaagacag cagttateag agaggagaat ttaateaaaa
                                                                       180
gaatcagaat agcatggtca caggccagat tcacattgaa gtatttactc tatattttac
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tgctgttaca ttcaaaatgt atcagaagtc tcatggttca attaataaag tgttattcgc
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120

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aagcattgat tggagcacac acaaaagtta ggaaatatgc tgcttggcaa ctgagtaaaa
                                                                     180
gtaaatatat agtotottaa acttooaaaa aagtatacaa tagtacagga tgggttotat
                                                                     240
tcacaagett tetgtetgta accgtaaaag atatcactat ctaaaaataa tatcagaatg
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cttgctgact gcagaccttg aaacttctcg ggctccatta acctctttta tatatagaga
                                                                    120
180
ggagaatcct gattaatata cccgataaat tcaaaacaaa acaaaacttg aaaaaaaaat
                                                                    240
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      <210> 1462
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      <213> Homo sapiens
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acattgcagg cagagaaaaa agaaagtgta ttccatgtaa gcaaatgtta tttggacctt
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tetetetgte tgacetaate atggeteaca gaaagtaate atacteetaa taatacatea
                                                                    180
acttatctga tttatccaca caatcacgta gattaatgta tgcttctatt tcctggtcgc
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tttagcataa tattgatcat aaattgataa ataggaataa aacaatataa ttagattaat
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      <211> 300
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taaattaaga cttataatct cataatgatc atgatttccc ccaaatgctg atgatgacca
                                                                    120
aatttctatt tctgtcccag accttgaacc cccagcctaa aaatcagatt gcatattgga
                                                                    180
tgtttcttcc tggaagaatg tcaaactgaa caagtctgaa actgatcttt gtgcatcaca
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acccagccaa acctgttact tctcctacat tccctttctt ggtgattggc ttgtccaccc
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ttttattttt agagacaggg tctcgtttca ttgccctggc tggtctcgaa tttctggtct
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ctgggctcaa gcaatcctct cacctcagcc tcccagttac ttggaggatg aggtgggaga
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attgcttgaa cctgggaggg ggaagttgca gtgagccgag attgtaccac tgcactccag
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     <210> 1465
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     <212> DNA
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                                                                      120
catgitaatt tigtaacatc aatggittic titaaaatti caagatatti atcitgitac
                                                                      180
ttgtattgga cagttctaag aaatcttaga gggataactg tcttacctgt tttttaaaaa
                                                                      240
agatcagett geaatettet getteaacea tatetgtatt agaatacagt attattteta
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1466
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cagetgggce etetgeetge aatgecatet ceatetette cateceette caggagaege
                                                                     180
tagcacteae tetetectee tetacatace ateattecte etectgaaga getactetee
                                                                     240
ctaactcacg tgtcacaaca acceactge cattatecte etetteatet teacaceggt
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      <210> 1467
      <211> 300
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      <213> Homo sapiens
      <400> 1467
gacagetgag geceetggaa ggeagateea acteeteete cagegacaee actggeteet
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tcacagettc actccaagaa acttctagac cccccagggg gtgtctcaag tgaaagtctg
                                                                     120
gccccacate tacccccaag gatggcactg gctaggactg cttcaggtct cggttaacct
                                                                     180
aggicaaagi giccitgggc gcaagiciga gitaggcigc agaaacacci qciacciccc
                                                                     240
ccaggttcac actgacaget geogggeetg ggtcaggcac agecagtget cacettcatg
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      <210> 1468
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1468
cctagttaaa tcacaacaag ttagtaatcc ataaatgatg tgtcctgttt ctctttagta
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gaaattatat ttttggctac cagttaagaa acttgtactc ctttgtccct tatgttacta
                                                                     120
taaactcaag atgatgagtt ttgtggtatt tgacttcata ggcaaaatca aaatttttac
                                                                     180
tttgttgcta ttctgtttta tgaaataaac ttctgtctat gcatttgaac taagtttcaq
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caaattcaat ctaaattgaa taattccagc tcccagtttt atcctatgtt qctcataaaa
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      <211> 300
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> (1)...(300)
     \langle 223 \rangle n = A,T,C or G
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180
tgtgcaagcc cagggtaggt ggcacccagt ctgccaatct gcaacgcact ggtatcttcc
                                                                       240
agccagtaga cettgeteee tqqgtgeeea gttetggate teaggaaaagg eggattaagg
ctcctaatgg cgggacctgg gtggggattt gntgncctnt ggtggcanaa gggacatcac
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      <210> 1470
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1470
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gaggattagc catgctgggg tctcttggac aaaaggctgg tactgattga aaaattccct
                                                                       120
gagtatgtct agaagtgtca ggctcctctg gaatcagtta cagtgggatt ggctgcttag
qtataatctt tataaqatta aaaattatag attatttggc agcttgtttg aaagtgttgg
                                                                       180
                                                                       240
tcccaagaaa aagttctgct gtgtgttatg gcagaattat taaaaaaaaat acattcttaa
                                                                       300
gttgaggttt ctaagtaggc ttttgtaaaa acaggcaatt acttgctgga ggcagttaat
      <210> 1471
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1471
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ctqcacqaqa qqqaqttact qaaqtccctg cagagtgact gttttcccct agtcagtgcc
teetttett caggteteaa ggaegggatg agettgeett ggaaagettt gagggagtet
                                                                       180
cgtattttac cttcatagca aaagttgttt ccccacttct ctccaccatt tcttatttct
                                                                       240
tcctgacagt tgttctggca catctcttga tcgattgtag tattttcttt ctttctttt
                                                                       300
      <210> 1472
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1472
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                                                                       120
gtogotycat ctqqtcaqco qqqtggctaa gaatcagtat ggctggcatg gacggcacag
cctgccaaaa accctgagga acctccagag actaggagag gagcagaaat atgaagagca
                                                                       180
aatggcctac ctccaacaga aagagctgga cctgatagat tataaatttg gagaacgtaa
                                                                       240
aaaagatggt gatccagatt cccaggaaca acagttactg gatttctctg aacccgactg
                                                                       300
      <210> 1473
      <211> 148
      <212> DNA
      <213> Homo sapiens
      <400> 1473
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catecetqqa qeaqetteca acactaette agggtggcag tgtttgggge actgggegag
cetgeeggee tetagatgge etcatetett cettecacaa actgtetaga accaataaaa
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ggaaacctgc caaaaaaaaa aaaaaaaa
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      <210> 1474
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1474
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taaaagatcc taagactgct gctgatgtgg tcagccctgg ggccaactct gttgatagca
gagtgcaaag accaaaagaa gagagttcag aagatgaaaa tgaagtgtct aatattttga
                                                                       180
qaaqtqqtaq atccaaqcaq ttctataatc aaacttatqq aagcaggaaq tacaaaagtg
                                                                       240
                                                                       300
attggggcta ttctggtagg ggtggatatc aacatgtgag aagtgaggag tcctggaaag
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1475
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aggetgtggg cagggtteca egggagaagg aggatgetge atgtetggga ettgtgagga
                                                                       120
ggaagcactg aagaaatcta tgtggcacac ggaggtgttt tcaggtgttg aaccataggg
                                                                       180
aggtetaegt gattteetea ttaggaggat tagagaggge agagteagga aaccaataga
                                                                       240
ggaggcctgg actaaatggt ggtagtggat atgtctgagg ctggggatca ggctctggtg
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      <210> 1476
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1476
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agggctagag cotttettt ttatggcact tetttttttq agatagggte ttactetgte
                                                                       120
accotggcta gagtacactg gtacaatcac ggctcaatgt aggcttaacc tcctgggctc
                                                                       180
aggtqtatqt cactatqccc qqctactttt tqtatttttt qqtaqagacq gcttcgccac
                                                                       240
gttgcccagg ctgcaagcga tatgcctagg ctcaagcgat ctgcccacct caacttccgg
                                                                       300
      <210> 1477
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1477
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aacatgagtg gagatataga tgaaaqctaa ataagcattc actgtgtctt atcaagagtg
                                                                       120
actaataagc tgacagcttt atttgagttc tggtaagcaa attaatatca tataaatcat
                                                                       180
tacaatttgg ataaagcaaa acctgttatc aaatttaaaa actgtttaat aattcaacac
                                                                       240
tccagtggtt tgccttgttt aagcaaaagg attctggcca agatatttta cttcagctct
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      <210> 1478
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1478
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catggggact gagtacacag atgaagacac agaagcatag agaggataag taatcactag
                                                                      120
caagtggaag aaccgggatt cagatccaga acaggctgac tccagagtca ctggctgtca
                                                                      180
tgtagtttcc tcaactactg cctcagctct acaatcccag agtaaagctc ttctccaaat
                                                                      240
gaagagccag gaagaggtag aggtggcagg aattaaactt tgtaaagcca tgtccctggg
                                                                      300
      <210> 1479
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<211> 300

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<212> DNA
      <213> Homo sapiens
      <400> 1479
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gtgtgatgtg acttgtcctc ttctccaagg cagtattact cataaattct tctttagcgg
                                                                       120
tactgatcta totgtgtcat cqctcaqtca accacatata ttaaqaccta qqcacaqaac
                                                                       180
aattetattt etataaaatt etagaaaatg caaactaaac cataatgaca aaaagaatat
                                                                       240
tagtggtttc ctagggatgg gatgtgggca aagagagacg aaagaaggag ggattaccaa
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      <210> 1480
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1480
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tgtttaaaac aagccccaat ccacacttga tcttcttaag ctaggaaaag tgaqctcaca
                                                                       120
ctgagtgctg gcaggatgct ccatgtgcat cattattttg tttaattctc acaataactc
                                                                       180
tctaaatccc ttttgaggat aaggagactg gggctgggag aagttatttc aaggagtaaa
                                                                       240
taaaaaaatto agacccactt gggttttatg ccaaaggctc tgtttttaca aatacacaat
                                                                       300
      <210> 1481
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1481
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atgataggaa agttctgagc aggqttctgq gtatagcccc ttgtgagaaa ttcaaqqccc
                                                                       120
aatcaatgcc atagatgagt tatatattcc aaatttacac tacttatgta ggtgtagtaa
                                                                       180
cctccaaatc aataaattaa tataaaattg gcccaggact ggtgaaacct agagtcctqt
                                                                       240
cagaagcaaa tacaaagcag ccctttaaca acagttttaa atttagggcc ttcaagaccc
                                                                       300
      <210> 1482
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1482
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ctgcctcata attgattacc atcatgataa cctgtagtca gtgtgaaata gagataaaaa
                                                                       120
ttaatgtact tagttaaatg catatgaagg tctaatcttg ttccagagtt actcttactq
                                                                       180
gattattttt agatttttat taacattact ggtctctaac tttactcagt ctggataaga
                                                                       240
aaaagaatac catgcaattg ttaactattt gatgtttact agattaacta ttaatatatt
                                                                       300
      <210> 1483
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1483
aatgtgtatg cggggctggt gggaacagcc cgggtggcgg gggtggatcc ctggtgtgag
                                                                        60
cctggcttcc tgtctgctcc aaggggcgtg gaacaggacg gactcaggtc caaatccctg
                                                                       120
gtttcctgtc ccttagtggt gtggccgtgg gcaaacgcct taacttccgt gagctttgac
                                                                       180
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240

agtotgtotg ggaggcaggg ctcaggcatc cctggcctct tggggttggg tgagaggqaq

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acagaggttt gtgaagcgct ttgcacacct gggcatctgg tcagtgttca gtaaatgcca
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      <211> 297
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(297)
      <223> n = A, T, C or G
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agacgtgtgg gaggagcggc ggcccatgac cacggcgcgc ggctggcaca gcatgtgcag
                                                                     120
cctgggtgac agcatctact ccatcggtgg cagcgatgac aacatcgagt ccatggagcg
                                                                    180
cttcgacgtg ctgggcgtgg aggcctacag cccgcagtgc aancagtgga cccgcgtggc
                                                                    240
geogntgetg caegeetnea getagtnggg egttnetana tgnaaengee etattta
                                                                    297
      <210> 1485
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1485
taggatettt atgtgtggee aacteattaa atttteagat taacteagaa atattgttee
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tttattttgc acatgaggaa actgaggctc atatgttttt ttcttcttta tttttattt
                                                                    120
ttagagacag ggtctcgttt cattgccctg gctggtctcg aatttctggt ctctgggctc
                                                                    180
aagcaatcot otcacotcag octoocagtt acttggagga tgaggtggga gaattgottg
                                                                    240
                                                                    300
aacctgggag ggggaagttg cagtgagccg agattgtacc actgcactcc agcctgggac
      <210> 1486
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1486
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tttatttgtt tttaatgtta ccagatggtg gcagtagagg tggcaacctt atagctccat
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180
tttacctgga agtcggactt agttccataa actgatcatt ttctgtggct tgtagtgttc
                                                                    240
aaattgtata atatteetea taaaataata tagaaataca gaaataaaag ttataataaa
                                                                    300
     <210> 1487
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1487
ttttttacta tgtaccataa tgtcccattc atgagaacct agaagtagtt tttctcatta
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gcgaatgcta gaattttatt ttttttcaca tagtgaaaag gtgaaattgg tctgtcttcc
                                                                    120
tetttaettt agetgetagt aaggttgaaa caacgatggt geecaaattt aacagttagg
                                                                    180
tgacatette ttetacetet ectaaqatta cecaqaette actttaceet tattteccae
                                                                    240
tgactttgat ccctttactt ggttttattc tgtagtatgg attttttgca tcttttcagt
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<210> 1488

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<211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1488
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                                                                         60
agacgccggc ggctcgggcg atggctgacc gcacacgttg ccaccctgag gtctttctgg
                                                                       120
aagtggatat ctactcagac agtaagaatt ataagagctg taagagctca ttttggagga
                                                                       180
ataatggatg aaccatctcc cttggcccaa cctctggagc tgaaccagca ctctcgattc
                                                                       240
ataataggtt ctgtgtctga agataactca caggatgaga tcagcaacct ggtgaagttg
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      <210> 1489
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1489
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ggcagaagag gctctgcgca cggacatcct gtgcaacctg cccagctaca aggccaagat
                                                                       120
acgtgctttt caacatgcct tcagcactaa tgactgctcc aggaatgtct acattaagaa
                                                                       180
gaatggcttt actttacatc gaaaccccat tgctcagagc actgatggtg caaggaccaa
                                                                       240
gattggtttc agtgagggcc gccatgcatg ggaagtgtgg tgggagggcc ctctgggcac
                                                                       300
      <210> 1490
      <211> 104
      <212> DNA
      <213> Homo sapiens
      <400> 1490
ggaagagga agaagagaag ctggttattt ctagaggatg tcgtaatcta catcacaggc
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agaactgatg gctcagtggc tgagtggcca gtatattgtc tttt
                                                                       104
      <210> 1491
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1491
ctggatccag tccaggccag agcctcctct gcagagaagg tactaggtgc ccatgcacag
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ggtgactgcc agcctcgtgg agtgggggca gtggtgtccc tgcgggcggg cttggtcttc
                                                                       120
tgaggccatg tcagtgccac cccagggccg ccctccatgg cagtgtgggg ccaacaagcc
                                                                       180
tgtcttccca tttttctgag agaggctgga aatcctgttc tttttatata taaagtgttt
                                                                       240
ccttttcaaa atattggcaa ctaagtaaat ccaaacaaag tatgggccaa atcatggcac
                                                                       300
      <210> 1492
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1492
gaccaaggag atgtgagtga aaatgatgca ggctgcttcc aggtgtgacc agtaagatac
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ttcccacata atcttcctac tctttcttcc ctgtttggca tcccatgtgc taagaatggg
                                                                       120
aaccetgagg teetatatgt ggaaccataa ggtaaatgte tttgggetet gaateteaca
                                                                       180
cagggctcac tgagaataag aaacatcctt cttgggcttt gtatgaataa gaaaatacta
                                                                       240
gcaaattttt aagaaggaag taattccagt atttcacaaa cccttccaaa gaatagtaaa
                                                                       300
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<210> 1493
      <211> 298
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(298)
      <223> n = A, T, C or G
      <400> 1493
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tttcattcta atattacatt attcttttta tcatttaggt ctttatccgt cagtgttttt
                                                                     120
agagaactac tgcacttgac cacaaactga taaatacttg gtactgcccc atctcactgt
                                                                     180
totgtttact ttqtcttaaa tatctctttt ttttttccca ggcagctagt acacnactga
                                                                     240
atcetttaag ettteanngn gaatttgnna aneteaggat tgacetttta caageett
                                                                     298
      <210> 1494
      <211> 300
      <212> DNA
      <213> Homo sapiens
     <400> 1494
gaaggcacga attgaattgt gggaacagga acattcaaag gcatttatgg tgaatgggca
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gaaattcatg gagtatgtgg cagaacaatg ggagatgcat cgattggaga aagagagagc
                                                                     120
caagcaggaa agacaactga agaacagcca ggctggtctt gaattcctga cctcaggtga
                                                                    180
tecacetget teggeetece aaagtgetag gattacaggt gtgagecace aegeetgget
                                                                    240
aattttgtat ttttagtaga gatggggttt ctccaaaggc tggtcttgaa ctcccgacct
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     <210> 1495
     <211> 196
      <212> DNA
     <213> Homo sapiens
     <220>
      <221> misc feature
     <222> (1) ... (196)
     <223> n = A, T, C or G
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tgtctccctq tqctqataca aqcatqaact ttctggaata ttctgctagt ctgaaattac
                                                                    120
180
tnngnccccn aggggg
                                                                    196
     <210> 1496
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1496
ttttaacagt qtqcctttgg ggagggaccc atgtccatgg cttcgttgag ggccatccat
                                                                     60
atgecagetg ggqqccagec cacagtggcc atattggetg cagcaggaat ggtgcccacc
                                                                    120
tcggcgaatt gaagggctaa gagtcccaga tagctaggcc agagctggaa gcagacagta
                                                                    180
aggggaagag ctqctcccac aggagaggga gagattccag ctcactgcgc agcctgggag
                                                                    240
```

300

gaggogtgga tootggcacg otgagootca ggcaccagco tooctgtgot ogacagcaaa

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<210> 1497
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1497
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tetetattat atetgttgag ggaatgttat catgagcaca ggtattagte etatgetttt
                                                                       120
aatcggttta gtggtttctt tgtgtctcat tttattcatt tgtaattttt ttaaagacta
                                                                       180
taaaacttcc acagtttctt tagatcatta agttatatga ctcttttca tgggggtcag
                                                                       240
ttaacaatac ataagaaaac atttgttcta ggataatata tgacctaaca gtcttttgtt
                                                                       300
      <210> 1498
      <211> 119
      <212> DNA
      <213> Homo sapiens
      <400> 1498
gctagttcga gtttttttc cttttactct ggtattgaca cattttctgt gatcattgtt
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aattagtgac atagtaacat ctgtagcagc tggttagtaa acctcatgtg ggggaggtg
                                                                       119
      <210> 1499
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1499
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gtccagagac ttctgagtat gttgatggat gtaaaaacat gcaatgaggt ggacctggag
                                                                       120
aattetgeag attgggaagt gaagacaata acaagtgeet tgaaacagta tttgaggagt
                                                                       180
cttccagage ctctcatgae ctatgagtta catggagatt tcattgttcc agccaaaage
                                                                       240
ggcagcccag aatctcgtgt taatgcgatc catttcttgg tacacaaact gccagagaag
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      <210> 1500
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1500
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atatcccgtt tcaaggctgt aattctgaga agatccgcaa gctggtggct gtgaagcggc
                                                                       120
agcaggagec actgggtgaa gactgeeett cagagetgeg ggagateatt gatgagtgee
                                                                       180
gggcccatga tccctctgtg cggccctctg tggatgaaat cttaaagaaa ctctccacct
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tttctaagta gtgtatcaaa atctaaacca aggagtctct ggacaagaag ctgggagagg
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      <210> 1501
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1501
caacteetga gacatacact cattgatgat teatcaegaa atgtttaatt atattgagea
                                                                       60
tgacgctagg accaggagga catttggaga ccgtattacc cagaccttac tttcatgtga
                                                                      120
aacctttgga aaaggcacaa ctaaaaaact ggacagaata cttagaattt gaaattgaaa
                                                                      180
atgggactca tgaacgagtt gtggttctct ttgaaagatg tgtcatatca tgtgcctct
                                                                      240
atgaggagtt ttggattaag tatgccaagt acatggaaaa ccatagcatt gaaggagtga
                                                                      300
```

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<210> 1502
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1502
gttttttaaa gaacttgata aatttacctt aaaatttaaa taaagtatac tgaataacta
                                                                        60
agtcaactta gaaaaaaaa agtgttatct aagacaagtt acaaagccat caccaaagcc
                                                                       120
catgatccgg cagacgacta caagcatagg gtcagatcca tctataaatg agagcctgac
                                                                       180
atacttcatc tatagcaaac atgggagaca aatcagtggt aaaatgatac agtgtttggg
                                                                       240
aagtgttatt tgaaagatgg gcttatttaa tgtatacaga tgaactcaat tcctctgtaa
                                                                       300
      <210> 1503
      <211> 261
      <212> DNA
      <213> Homo sapiens
      <400> 1503
aaaaagaaaa aaaaaattag ccaggcatgc gaaacgctga ggtgggagga tcagatgagc
                                                                        60
ttgggaggtt gaggctgcag tgagccttgg tcatgccact actgcgttct agtctgggca
                                                                       120
acagagtgag accttctctc aaaaaaaaaa cccaaaattg taaaattact tctatagcta
                                                                       180
tattttatga taaagaagtg attgtttctc aaaatcgcat tttaaggacg ttttatggta
                                                                       240
cttgttggaa ttgggactta g
                                                                       261
      <210> 1504
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1504
aaggtgggtg gatcacaacg tcaggagatc gagaccatcc tggctaacat ggtgaaaccc
                                                                       60
tgtctctact aaaaatataa ataaattagc cggacaggcg cctgtcctcc cagctactca
                                                                       120
ggaggctgag gcaggagaat ggtgtgaacc tgggaggcgg agcttgcagt ggcaccatca
                                                                       180
tatagetcae tgtagectca aacteetggg etetagtggt etteecaett cagettetgg
                                                                       240
agtagetggg getaetgeae etggaattgt ettaatetgt tttaataeta ttaaaatttt
                                                                       300
      <210> 1505
      <211> 300
      <212> DNA
     <213> Homo sapiens
      <400> 1505
aattttcctt atatgttctt tgacccttga attacttaga aatgtatttt ttaatttcta
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aatacttaca ggtttaaaaa ttttgttttc aattactaat ttaattctgt ttcatcagaa
                                                                      120
agcacgacca tcgtggcatt gaaacttgag ttatagccta ctatcatgat caatttaaaa
                                                                      180
aatatatata tagggctggg tgcagtggtg cacatctgta atcccagtgc tttgggaggc
                                                                      240
tgaggtgggt gaatcacctq aggtcaggag ttcaagacca gcctggtcaa catgacaaaa
                                                                      300
     <210> 1506
     <211> 300
      <212> DNA
     <213> Homo sapiens
     <400> 1506
aaaaaaaatt gtggtgattc acacctgtaa tcacagcact ttgggaagcc gaagcgggag
                                                                       60
ggtcctttga ggccaagagt tcaaggccag cctgggcagt ataatgagac cctgtctcta
                                                                      120
```

```
caaaaaattt ttaaaagtaa agaaatttta agataactaa atactacata gtcatatatt
                                                                      180
ttaaatattt attacataaa ggtaaaccaa atagaagagg aaataatgtt atgccctact
                                                                      240
tcatatgacc aaaaactgga agatagtgtc tgaaaatgaa aatgattgta ttgggaaggt
                                                                      300
      <210> 1507
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1507
atgacttcct agctttaccc ggggtttttt ctgcaggtgg agaagggtgg agtcctccca
                                                                      60
gatggttctt tctttgctcc cctaacagcc tttaagatgt ggctacttgt ttttcccacc
                                                                     120
gtttaacacc ctccaacttc atttggagca cgggttcctc aagggatcct gagagctggg
                                                                     180
240
ggaaggetgg ttggegeeat gaggaaagag ceaegaggtt ttageteeeg aacegaeteg
                                                                     300
      <210> 1508
      <211> 252
      <212> DNA
      <213> Homo sapiens
      <400> 1508
cctggctaac aggtgaaacc cggtctctac taaaaatacg aaaaattagc tgggcatgga
                                                                      60
ggccggcacc tgtagtccca gctactcagg aggctgaggc tggagaatcg cttgaacttg
                                                                     120
ggaggcagag gctgcagtga gccgagttca cgccactgca ctgcagcctg ggcaacagag
                                                                     180
tgagactctg tctcaaaaaa aaaaagtgta gaaaaacttg actttaactt caaagtttaa
                                                                     240
tttgaaagtt ta
                                                                     252
      <210> 1509
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1509
caggactcaa gatgactttc taaggtgatt tggggatgca gtgtatgcat ttttttactc
                                                                      60
tttttgaaaa aaatcttttc ttcgcctttg gagtgtaaca tttggatagt tttattcagc
                                                                     120
ccataatagg accaaaggga aggggataaa aaaaaattct ttaaagtacc tcagataaaa
                                                                     180
aggttttgtg aagaaaagga ctcaaaatcc taggttatac caagacttta tgttcatttt
                                                                     240
gaattttctt tattcatttt tttcctctct gtgtatagaa taatcaggag atattggtgg
                                                                     300
      <210> 1510
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1510
gggacattac cagtcatgca aaccaatgtg caaaatgcag gcgttgctgg gagcccagaa
                                                                     60
ggcctactgg ccagggctgt cgatgctgaa tgtgcagcct gatgccaggg ggtgggcctt
                                                                    120
gagtgctgcc cagccaggaa ctcctcagcg cccagaatac caatgaccct cctttccccc
                                                                    180
agetecaggg cetetgette ceteteettt cecaggetet etttgetttt cecteetece
                                                                    240
tcctgggact gtaggcaaag cccctggcac ggacagtggg caggacagcc agatgcctag
                                                                    300
     <210> 1511
     <211> 300
     <212> DNA
     <213> Homo sapiens
```

```
<400> 1511
attatttaaa gcttattcaa tttaaaagac tacttgtaat tccggactta ttctttaaat
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agttggtatt aaggtttctt ttgtaaaata agaggtggta gtatttttca atgcccttaa
                                                                        120
ttaacaaaat taaaagtttg aaaaccatat gttgattctc cctcatttta aaaaattttg
                                                                        180
taattccact ggtccacaaa aatcccaatt gaggagagct ctgggaagag cacattctgt
                                                                        240
caatgggtct caacattttg gtctcaggac cactttacat tcttatttag gaaatgacct
                                                                        300
      <210> 1512
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A, T, C \text{ or } G
      <400> 1512
cttggatgta tggtttaata tgtatacctt ataattctgc ctctagccaa atgctatggt
                                                                         60
tgcaaaatgt ggcatctgtt agtttttatt gtctgtgtct tctttgttta ctataccttg
                                                                        120
ggtaattttg tgttaccaaa aaaaaaaaaa gggacgggta nggtnaaacc cccaaaaaag
                                                                        180
ncaatnonng nttttancct naaannonaa tntcaanggt natnnccaac natngggntt
                                                                        240
ttttnaacnt tnaaannott tangonoont atnntggoon ttnnnaantt tqqqqqttqq
                                                                        300
      <210> 1513
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1513
cccactgaaa actgctgtct agaccaactt ttttttctat tattttttt cttcttatag
                                                                        60
agatgaggtc tcactatgtt gcttgcccag gctggtcttg aactcctggc ttcaagtgat
                                                                       120
teteteacet tggcetecea aagtgetggg attacaagee tgageeaegg cacceagtet
                                                                       180
cagaacaact gctattggtt catttaacaa actccattac aattttactt ttccgtctcc
                                                                       240
ttttctagac tgagtctctg aatcatttct cccatatatt ctccatacct agaaaacacc
                                                                       300
      <210> 1514
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1514
cgccgccca ctcgccccag ccgccgccat gaaggccgtg gtgcagcgcg tcacccgqqc
                                                                        60
cagcgtcaca gttggaggag agcagattag tgccattgga aggggcatat gtgtgttgct
                                                                       120
gggtatttcc ctggaggata cgcagaagga actggaacac atggtccgaa agattctaaa
                                                                       180
cctgcgtgta tttgaggatg agagtgggaa gcactggtcg aagagtgtga tggacaaaca
                                                                       240
gtacgagatt ctgtgtgtca gccagtttac cctccagtgt gtcctgaatg gaaacaagcc
                                                                       300
      <210> 1515
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1515
ggatctcata gctagggaac atttcacaaa taaggtgaga ttttgtaacc aataataaaa
                                                                        60
```

120

atgaatgttt ttataagtaa ataacttatt tttcatatgg ctaaagatgg taaaatgact

```
tcattctata gccattgtaa ataagaattt gctattgatg aaagaagttc agattggcat
                                                                        180
ttgaagtatt gagtgtatgg gatctctaag gatttcttag attttatatt taaatatttt
                                                                       240
ttaaacctta gaggagtcaa caaactggct cttgattttc agcaccctac tctcatgaaa
                                                                       300
      <210> 1516
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1516
cccagccata atggagcctg aaatcaggaa ttcatgtttc aaggttacat gtacaaatgt
                                                                        60
atgccctctc agaacaatgg ccattttgag aaagccagtg agagacagcc agaccaggtc
                                                                       120
ctctggccta gcacccacca gtgcctgcca gctcagccca agtctcctca cctaggatag
                                                                       180
cttgatggaa taacaatgta ttttaatttt ctgtagacct aaaactgctc ttaaaaagtc
                                                                       240
tattttaaaa atccatcatt aaaacacaga ctttctccat aataagaagt tggaggggct
                                                                       300
      <210> 1517
      <211> 247
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(247)
      <223> n = A,T,C or G
      <400> 1517
tgctattgta ataataacaa taaagagaaa ttagaagtgg gagtcagggt agaaaaaaat
                                                                        60
gcaaaggcct tggtccctag gagaccaaca ctccagctga gctggcctta gccccagccc
                                                                       120
cttctaattt ctctttattg ttattattat tattttctct gctattgtaa tattttttg
                                                                       180
ttaattaaat gttttggtca aaaaaaaaaa aaaaaaaaa aaaaaaaa nccngncccn
                                                                       240
taaaaaa
                                                                       247
      <210> 1518
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1518
gtgttgctca gtgagcagac ccgactccag aaggacatca gtgaatgggc aaataggttt
                                                                        60
gaagactgtc agaaagaaga ggagacaaaa caacaacaac ttcaagtgct tcagaatgag
                                                                       120
attgaagaaa acaagctcaa actagtccaa caagaaatga tgtttcagag actccagaaa
                                                                       180
gagagagaaa gtgaagaaag caaattagaa accagtaaag tgacactgaa ggagcaacag
                                                                       240
caccagctgg aaaaggaatt aacagaccag aaaagcaaac tggaccaagt gctctcaaag
                                                                       300
      <210> 1519
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1519
tcatttctga tgctccatga tagagttgca aagcatgctt taaaaaaatgc accttattct
                                                                       60
gcattatttg caagtttact tgtggtgtga atgttttttc tactatttct actattagat
                                                                      120
gtgaagaaaa gtatacttgg cttaaaatgt gtcacaccat gacaattagt cttctaatat
                                                                      180
ttgcctcatt tatataaaat ataatacatg tttgtcagca tgtaaaggtc ctgggggcct
                                                                      240
tgtacctaga gttaaagcag gcacaaagca gccatgacat tgtgacaaga tataccatgc
                                                                      300
```

```
<210> 1520
       <211> 300
       <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A, T, C \text{ or } G
      <400> 1520
gggacgtcca agatcaagag gccagcagat tcggactccg ctgagggctg tttcccgatc
                                                                         60
catagatggt gccttctcgc tgtatcctca atggtagaag cacaaacaag caagctcctt
                                                                        120
cetgeetett ttataaggae tecaaceetg tteatgaggg etetgeecee atgacecaat
                                                                        180
cagctccaaa ggccccacct cctaatactg tcaccttggg ggtgagaatt ccaatgtgaa
                                                                        240
tttgcagggg gaggngnggn aaangnnaat ttcggggcca taccaccctt caccacaccc
                                                                        300
      <210> 1521
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1521
tgaaggacct gcctgcggct gctttacagt ttgtttgttt ttttttaaaa taagtagaag
                                                                         60
atatacacta aagtaatgat aaatgtatag tatagtaaat acacaaacca ttaacagttg
                                                                        120
tttattttca agtatatgta ctgtacatta attgtgtgtg ctgtactttt atacaactgg
                                                                        180
cagcatggta ggtttgttca caccatcttc tccacaaacc tgagaatcqt qttqttqcac
                                                                        240
tgcaagtcat taagttagga attgttcagc ttcattataa tttgtgggaa cataaqatgt
                                                                        300
      <210> 1522
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1522
ccccagccag ccttcagggt ccccttggat tgtgtagatg cagtctagcg gggggccgga
                                                                        60
gaagggctca ggtgggaggg gcctcagcag gctcccagct caggggctgg cctggqqqqa
                                                                       120
accetgggag ccaggggetg actecageaa caetggeetg tetgeetgtt etgggaggge
                                                                       180
tgtgaggatg tettgeagat getetggatt tetgeggagg caectecatt cetttetgge
                                                                       240
tttttttgcg ggggagggct ttgggcctct ttctttgagg gaacaccgtc aaagaaagcc
                                                                       300
      <210> 1523
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1523
gaagaagctg cagaagaaat gaagaaagtg atgatgattt agattttgat attgatttat
                                                                        60
aagacacagg aggagaccat caaatgaatt aatatcactg tattaaaagt ctqccqqqca
                                                                       120
cagtggctca cgcctgtaat cccaacactt tgggaggcca aggagggtgg atcacctgag
                                                                       180
gtcaggagtt cgagaccagc ctggccaaca tggcggaacc ccatctccac taaaagtaca
                                                                       240
aaaaattagc tgggcgtggt ggctcatgcc tgtaatccca gctactcagg aggctgaggc
                                                                       300
      <210> 1524
      <211> 274
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347

<212> DNA

```
<213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(274)
      <223> n = A,T,C or G
      <400> 1524
ccttgtggta gttaccacaa cacatgcctc attaagaaac agcaaccatc agagggaatg
                                                                     60
cctgcctccc tgttaccagc tctgcagatg tgcacatatc ttcctgtcgt aagccaatgg
                                                                    120
gacttaaacc ttacctcttg tgttttggag actatctttt ttttttttt tttngaaaaa
                                                                    180
gggnccccnn gggtngctaa ggcngnaggn caggggggn ancngggntn anngaaccnt
                                                                    240
tnnccnangg ggtnaangaa nctntcnngc ntaa
                                                                    274
      <210> 1525
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1525
gaaaaaggaa agatggatat ggaagaaatt attcagagaa ttgaaaacgt tgtcctagat
                                                                     60
gcaaactgca gtagagatgt aaaacagatg ctcttgaagc ttgtagaact ccggtcaagt
                                                                    120
aactggggca gagtccatgc aacttcaaca tatagagaag caacaccaga aaatgatcct
                                                                    180
aactacttta tgaatgaacc aacattttat acatctgatg gtgttccttt cactgcagct
                                                                    240
gatccagatt accaagagaa ataccaagaa ttacttgaaa gagaggactt ttttccagat
                                                                    300
      <210> 1526
      <211> 294
      <212> DNA
      <213> Homo sapiens
      <400> 1526
gctacttcat aaaaataatt tttttgaatc atatttggga atctagattt tagatgataa
                                                                     60
tttttgccta tggctacttt agcttgcatt gtgtaaatgg ctgctagggc ctgcgaaata
                                                                    120
gattttattt ttggaggggg atttgttttt caatacagga tgatgaaaga gatgaaact
                                                                    180
240
tagtagatgc tcaataaata cttagtgtat caatatggct tctgttaaac attg
                                                                    294
     <210> 1527
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1527
ttttaaagta aggatttgtc tctggagttt aaatagaact acagtcaact tacatgaaga
                                                                     60
attagaaaaa gtaagccctt catattttgt aaaacacatt tgcaggcatc atctcatttg
                                                                    120
atcccaatgg aagccctgtg aagcaggcaa gatttggaca agtttcttca ttttatagat
                                                                    180
gaggagatta agacttaggg tggcatctgt aggtgacatc cccactccta gcacaatcag
                                                                    240
tcttttcctg gcagctgggc agacactgaa ccaactcaga gagtgaggcc gctgctcaag
                                                                    300
     <210> 1528
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1528
```

```
aagtgattto ctotgotttt gtocaggogo gocaaagaac gtggogotta gtoacttoag
                                                                         60
attoccttot gtotgtgato coctotgaga aataaaqcca taaatatgot qaqttotqtt
                                                                        120
gacattcaca coggaaatag cacagagete caagtattgt ggteteettt cogattttat
                                                                        180
tgctaaacag caagaaaac agcagagggg ctttcctggc gagtcagaga aatgcaacgt
                                                                        240
ggttttttgt gtgttttttt ttctccgcaa gacagaggaa actatctctt cacaccattq
                                                                        300
      <210> 1529
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1529
gctgggagta taggctgagt taggaaqatt gcttgagccc ggaaqqcaqa aqttqcaqtq
                                                                        60
agccaagatc gcgccactgc actcccaact ggacgacaaa gcgagatact gggagtatag
                                                                       120
gcattcgcca ccctgggcaa catagcaaga ccctgtgtct acaaaaaaatt taaaaaaaat
                                                                       180
tagcctgtag ccctagctat gcaggaggtg gaggtgggag aattgcttga acccaggagt
                                                                       240
ttgaggttac agcgagctgt gatagcacca ctgcactcca gcctgggcca cagagcaaga
                                                                       300
      <210> 1530
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1530
taaaaaacca ccttttgttc gaaactccct ggagcgacgc agcgtccgga tgaaqcqqcc
                                                                        60
gtccccaccc ccacatcctt cctcggtcaa gtcgctgcgc tccgagcgtc tgatccgtac
                                                                       120
ctcgctggac ctggagttag acctgcaggc gacaagaacc tggcacagcc aattgaccca
                                                                       180
ggagateteg gtgetgaatg ageteaagga geagetggaa eaageeaaga geeaegggga
                                                                       240
gaaggagetg ccacagtggt tgcgtgagga ctagcgtttc gcctgctgct gaggatgctg
                                                                       300
      <210> 1531
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1531
ccaacatggt gaaaccccat ctctactaaa tataccagaa attagttggg cgtggtggca
                                                                        60
ggcacctgta atcctagcta ctcgggaggc tgagacagga gaatcgcttg aacccgggag
                                                                       120
ggggaggttg cacttageeg ggategtgee gttgeactee ageetgggtg acaagagtga
                                                                       180
aactccatct caaaaaaaga tgagatgaac tcctaggttc aaatgatcat cctgcttcag
                                                                       240
cctcctgagt aactgagata caggcacggg ccaccgtgcc cagcttgtat actgcacttt
                                                                       300
      <210> 1532
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1532
atccaactgt ggcttctccc aggaccatta cacttgtatc taaataccta cttgacatct
                                                                        60
tettttggat aetgaataaa gatettgaae aaaeaaataa aaaeagtagg ttgttgatge
                                                                       120
atgttacttt gcccaataga tatattctat cagaatgtga tttgtatata taatatgttt
                                                                       180
acatattaaa ttttgattca attaaaattc tccacagggg agattctgtg gtaagttctt
                                                                       240
tcgtaaatga agtaattatt ctagtgattt aagttcatgt tacttgtact ttatgcttta
                                                                     - 300
      <210> 1533
      <211> 298
```

```
<212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(298)
      <223> n = A,T,C or G
      <400> 1533
gtcagatggt agaaaatgaa ataattaaat agataccatt tgagttctgg gagccaggtg
                                                                         60
aagaagtgtt tgtttgtttt tgagacggag tctcactctg ttacccaggt tggagtgcag
                                                                        120
tggcctgatc ttggcgcact gcaacctccg ccttctgggc tcaagtgatt ctcctgctcc
                                                                        180
ageettetga gtagetgggg etacagaegt gtaceaceae acetggetae tttttgtatt
                                                                        240
tttagcagag aggggatttc tccatgttgg tcangctggn tttgaactcc tgacctca
                                                                        298
      <210> 1534
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1534
gcaggacgtc ttcttcgaca tggaggccta cctgcccaag aagaacgggc tctacttgaa
                                                                        60
cctggtcctc ggcaatgtga acgtgaccct cctcagcaac caggccaagt tcgcctacaa
                                                                       120
ggacgaatat gagaagttca agctctacct gaccatcatc ctgctcctgg gtgccgtggc
                                                                       180
atgtcgattt gtccttcact acaggtagtg ggtgtggccg tgtgtgcctg ggcctgggca
                                                                       240
tgcagacgtc aggtggggc cgggagagag ggatccaggg gacccggagc ctctcctgct
                                                                       300
      <210> 1535
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1535
gcaagagatt tcacagacct gattgttatt aatgaagatc gtaaaacccc aaatggactt
                                                                        60
attttgagtc acttgccaaa tggcccaact gctcatttta aaatgagcag tgttcgtctt
                                                                       120
cgtaaagaaa ttaagagaag aggcaaggac cccacagaac acatacctga aataattctg
                                                                       180
aataatttta caacacggct gggtcattca attggacgta tgtttgcatc tctctttcct
                                                                       240
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acaatgtttt acactttaaa aaaaaaaac agaaggaaca tttgctttat tggttactta
                                                                       180
ctagtttagc ctctaggtta tggcacagca tgctaaaaaa tcatgtgttt aaaagtaaat
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gttggtaaaa tgctggcatc tggtcctatt gngttgatgc attttcactt ctg
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gatcagcagt acaaagagag gatacggaat gcagaactct tcctccagct ggaaactgaa
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caagtggaac gaaattacat taaagaaaag aaggcagcag tgaaagaatt tgaagacaag
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cctaaatcag aaatacaaaa tcaaccactt ttttgatgat ccagggtcta tgtatattta
                                                                  180
ttacatgtat gtatatatgt atatatatac ggcatgtgta tatatgtaca tncatacnna
                                                                  240
tagatgtgct tgtactagcg tttttcccac caggatagtt agcctttctt cnccccttgc
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                                                                  180
gaagatttgg geeteetgee tgeettetet ttgtttetgt teetetteee atetaeteee
                                                                  240
ctacgcccct tcaacctttt ttctctqtct qcttcacctq aqaaqaaaqt qtacqaaqaq
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tatagtattt tacagccact tcattatatg ctatttccgt gtactggcaa aaaagagaat
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aaaacttcct aggatataag tacctactgc tgttttggtg catgtccagt taggcttttc
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totttttatt tgtttgtgta cotgtaacto catataagca tatataatca tgttacatat
                                                                  240
gtttaaaagg cgtcattttg caatgcagtt ttatcactag ttttttctct gtcaagggat
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245

taaaa

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 catageteca etetgacetg tgaaggaatg gggatgagge caggagetag tgtetaceae
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ggccacacag ggagcagtgt gggcccttag cccccaaggg gcctgctatg catgtggctt
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 tttttttt
                                                                        189
      <210> 1547
      <211> 300
      <212> DNA
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tcttattttt taaattgtga gtaattttca tgcttggtag ttgatttctt ttccatctct
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gtatgcatac ttcctgcacc tagtaggcac ttgatttttt tttctttgaa tacacagcag
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atgecatgta aacteattag taettgeete agaacaetga attettaeet gtgttaaatg
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aaagtcatta tggatctcaa acttttactt taattgaaac cataaaaaaca tatattcact
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caccaatgtt ttatgcaggg ttaatgcctt ctctttaaaa ttggacttct gattggattt
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ctacctcatt tttcttatgt aaacacttat agttcacttt tgatatttat gggttttgat
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ttttgaaaca aagggaaaat gttaaaacat atactgttca gtaatgccac ctaatccatg
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                                                                       120
actgggacaa atgaacatgc atactattaa aatacttcct acaataggca taaaatgggc
                                                                       180
tttcttaggt gaaccaggag gtatagttag cctaatcata tgctatgatt attagtaatg
                                                                       240
gttttctgtg ttttatcatt catatttgta aatctttttt gaatgactac ttggaaatga
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ttttcatgct atctttagt cagatttaat ttaatgtgta tttctagttt attgcttctg
                                                                       120
ccatgtttta ttctttatga agatccccga gtattgagtg tgccagttac cagattctct
                                                                       180
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cccagctcta aattacctct tcattacttg atctgcaata ttggagccta accctttagg
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ccaggggtgt ccaatgtctt ggcttccctg ggccacattg aaagaattgt cttgggccaa
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      <213> Homo sapiens
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getttggttg agacagggtt ttgetetgee geetaggetg gagtgeagtg gegtgateae
                                                                     120
tgcagcctcc aactcctggg atcaagcagt cctcctgcct tggccttcca aagtgctggg
                                                                     180
attacaggeg tgagecactg tgeetageet gaatagetet taaatetate caettttett
                                                                     240
cctctgcaca cctgacaccc tagtcctgct gccctcttct ccacctggac aacctcgccc
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1552
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tttgaattta atttgttgtt aagagtaatt agcaattcta gggaaaaaaa agctatttt
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attttctcta cctcctaaca caaaaggtaa cattcatctt ctaggaaggg aaactcttga
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taactctgtg tetttetagg teagecacag actaeactaa gteaceaact ecaaagggga
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aatttggctt tttggtgagt acttgtgcta gagaacagta gaatgcataa tctggtcagc
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      <213> Homo sapiens
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gcagacagaa taggtcctaa gaggtcatcc aagaccacac agactgcaca gaacagctga
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ggtgggaacc ggggacttcc ttctcatatt ttttgaatga attaatgaat gagggattgt
                                                                    180
gagaatgggg ctggcctgtc ttatgcagcc tctccgagag tggcccaaga actctgaaat
                                                                    240
ggtcctggaa gtagagaga aaaatggaaa ttgacagttt aggactcaac agccacaaag
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120
gatgcacaga gaattaggaa agagtetgaa tteaaceetg gaaceetgae ttteaggtga
                                                                    180
gtgcctggcc cactaaagaa tgacaaagcc atggggagtg gcatggaaag catgagcttt
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ggagttagac aggcctgggt gtgaatcctg gtcaccccag ttctgttaaa gacctcagaa
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tcgtgggagc ttaaggcctt gtttaaaagg gaaaaaacaa ctgagtcttt ttagattaat
                                                                        180
caaaaactat cctcttcctt tggagaggag agagtgtttg tcacacgcgg aatgaagtgc
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aggtaattat ttaagatgtt tgataaattg taaaatgctt tttacatttt ttaaggaatc
                                                                        180
aattgaacta ctggaaacca gtatgtagta ttcttggcag gtctaggttt cataatccta
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atttetttge ageceactat teagaaatgt agtgattaae agagteaaga atgttteagg
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acttgcctta aaaacagaag aggttaaaaa gaatttagaa aaaataaagt tttagagtgt
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ttgagaatgt gtatataaaa tattttcaaa gccataatat ggatgctctt atggctcaga
                                                                        180
agcatgccta ctagaacacg tctcggaatg agagatgttt aattctgtca cctcccagaa
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agttttgcag ggtttctcac ttgaatttgc ttccctttgc aacctcttgt cctgaaggcc
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gccacgccca gcagtggtga gggacccaca gattttggaa acgacctgga cacactattg
                                                                       120
ggaaggagat gtggacggcc tgtctcctcc tgcagggccc accctaagaa tgtattttta
                                                                       180
aacacatgaa ataagtattt ttcactgata aaaaaaaaan aaaaaanaan ttnnnccntt
                                                                       240
taaanttntn gtgggntttt tnacnnannt ncaaactngn aagaanttcn tngtggattt
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agggcccttt cttctactgg cattctcact ttgaattact aagaagtttc ttctaatatc
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cctctatctc ctttttcttt ctagttttag ataaagctgt caaaagaaca gttatcatag
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aaatagaaac atttaaatta ccggcacgat agcttatttc ttgctgcaac cattcagaat
                                                                     240
atctatttgt cactgoottg ggtgotttga agtgaaactg tgottagata taaaaagttt
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aacaaataaa tgggaaccca gtgcctgatg aaaatggaca cattcctggt tgggtaccag
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tagagaaaaa caacaaacag tattgctggc attcctctgt agttaattat gaatttgaaa
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ttgcaaccac ttctgtctcc gttagccccc cctctgccct cctccaagcc aaagcgtggc
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etggettttg tetteecatt tagtttteet ettttaceet teettttgtg ettaatttat
                                                                    240
taaaatagtt gctgtataat ttattttcat aaactataaa aaaatactaa atggttaaaa
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     <212> DNA
     <213> Homo sapiens
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accatttata tagtagactg aaagcatgca gaacaatcca ttgttgttta cgtgtgtaac
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agtcatagga atgacaacca ctgccttcag aattatggcg acctctgcga tggaagagaa
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tgggatcaga gaaggataca caataggctt taactgattt tgtgattatt gatattagaa
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cccttccaga tataaaatat attatagaac tgtgtaatta aagcaatatg gtactggtcc
                                                                    180
ataaaagaac ataaaaccaa atagttcagt agactcaaaa tgcaagcgtt ggtqagggta
                                                                    240
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cgaaattatc tccaqaaaaa tactcttqqa aaaaaqtcat caatgttcqt ataattctqa
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tattttaaaa aatcttttag attaaaacaa agggtcaaaa cctccataga gtcaatgcta
                                                                        180
aatgggtgaa aatgtgacat aaaaatgccc tgtgttcacc agattgtcat atactttatg
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      <213> Homo sapiens
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acctetetga tttgtttagt tttteteate tataaaattg aaatgataaa atgaaqqtta
                                                                       120
aattagaaaa tgtagaaaat gcctagaaca gagtcttgca tatggttggt actaaagtgt
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tttgttcccc atggatagta tcttctctta aagatccttt gaaagggctt taaagtgaac
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cttgtaggat ggtaattttt qttcatttta atttttttag taagttttqa ttqaqatctt
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aatacctatc cttttcaaga atacataaaa taatgaccat atatatacca cagagtaagc
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tgcaaccaat tctagataac ttaaatacag accatgtttg gaaatttaag aaaaaaaaac
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acatttataa cttgtggatc aaaaaaqtca tagaacttag acaatacttg gaactgaatg
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      <400> 1567
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caattgtcat ttactggtga gacaatgaga aaaagacacc ctcaaacact gttggtagaa
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cacaaattgt taaaatcttt ctaggagtca ttttcaaatt atgtatcaat gacctaaaaa
                                                                       180
tatttatgtc tcctgttctt atacttccag aaatctattc tacagtaata accggagata
                                                                       240
aaaaccttta catataaaca tgatttatta tactgaaaag tcaaaacaac ataaatatta
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      <212> DNA
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      <400> 1568
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atttcctaaa ggagatgtaa tcagtgtaga gaaaaccgtg aagagatgcc ttttggacac
                                                                       180
tttcaagcat actgatgaag agtteettaa acaagettee agecagaage etgeetggaa
                                                                       240
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aagtcaggga agtctgttca gaggaagtca catgtgaagt tagtgaagtg gggaagcaaa
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 tgggtgcggt gggaaagaga gtagttcctg aaaagggaac agcatgtaca aaggcctaga
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ageggttggt cattgacgag atetcaatgg tggaggcaga cetgtttgcc agtggccagg
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cctatgtggc cctttctcgg gcccgcagcc tgcagggcct acgtgtgctg gactttgacc
                                                                       240
ccatggcggt tcgctgtgac ccccgtgtgc tgcacttcta tgccaccctg cggcgggca
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      <212> DNA
      <213> Homo sapiens
      <400> 1571
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ctggacaata ctcaattcac aacttagcat tttgccatct gaagcttggc aaactagtat
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ctgctgtaaa acaacctata tggtatgtga accgtagtat tcctgagcaa aacgtggctt
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tcatcgcttt gtaaaaattt gcatctgttt agaaactagc ctataaaata tcaccattgg
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atgtagatat ggagagaaaa gaaatatgtt gggtttattg cttagcgaaa tattctcttt
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      <210> 1572
      <211> 300
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      <213> Homo sapiens
      <400> 1572
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aggtttataa agttatttgc tatgtgttgt tcttacatca ttgattcatg taagtagact
                                                                       120
tgtgtgacag ctaattctta aaaaattatg aagatgttag acttcttttg atatatatat
                                                                       180
gttgattgta tgaacagatt gacatcaata tacttattca ttataaaaga tttgagtggg
                                                                       240
aactcaccaa atcccacacc aaaaaaattt aaaattttac catagtaaaa aaaactaaaa
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      <210> 1573
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1573
gcacaattgg tattcaaacc caagtctgtt tgactcccaa acccatactt tgaacctgaa
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gtctgtactg ctgaaagttt ctccttattg aagaatttat attttgcatt aatttatgtc
                                                                      120
ttcagaatta tacaaagtat tgggccacac caaatttgag tctggtatag tagccttctt
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```
gtaaaaaatt atatcatata acatttttat gactgtgaag acctcttaat tcttcaggaa
                                                                        240
ggagggccct ttttcaaatc agacatcctq qqqtttttac tqaccttatt tcattctctq
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      <210> 1574
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1574
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acagaattcc agaattccct acaagaattt atcaactggc tcactctagc agagcagagt
                                                                        120
ttaaacatcg cttctccacc aagcctgatt ctaaatactg tcctttccca gatagaaqaq
                                                                       180
cacaaggttt ttgctaatga agtaaatgct catcgagacc agatcattga gctggatcaa
                                                                       240
actgggaatc aattaaagtt ccttagccaa aagcaggatg ttgttctgat caaqaatttg
                                                                       300
      <210> 1575
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1575
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tgaatctaaa gagagggctt tattggatca ctattctggg ataatattga aataacaact
                                                                       120
aataacaata acaacaattt ttgttttgtg aaaaaataat acaaccaaat gaaaatagat
                                                                       180
taatcaaaac agtgaaaacc ctqtcccctt ttctgagctt atgaaaagag aacctaatta
                                                                       240
gtaggcattc tttttatagc taatgtgcta attgcctcag agataacacc tgtgtaattt
                                                                       300
      <210> 1576
      <211> 276
      <212> DNA
      <213> Homo sapiens
      <400> 1576
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aatattette ecaatgtgat ttttttettg ttgttaaaga eaggetetgg ttttategee
                                                                       120
caggotggag tgcagtgaca taatcatagt ataagcatag ctcactgcag cottgaactc
                                                                       180
cagggetcag acaatecace tteetcagee teccagggte etgggattae aggtgtgage
                                                                       240
cactgcactc tgcccccaac atgattttt tttttt
                                                                       276
      <210> 1577
      <211> 300
      <212> DNA
     <213> Homo sapiens
      <400> 1577
ctctgttcag aagcccctga ttttgctcca gcagcactct caccctttct agtgagtaag
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tacactggat tttaaatccc taqcacctaq cactqtqcct qqqcaqccca qcataqqcac
                                                                       120
tcaataaata tgtgaatgaa tgaatgtgtc tgtctgtcag tcagtcagtc agtgtttatq
                                                                       180
ggatetgagt gtatteaeta gtagatteta tgttettaet tggetteaag aacetgtgaa
                                                                       240
tgaataagga tcaccactgt aaactaaaaa caaaatttta agccatcagc tqactgaaga
                                                                       300
     <210> 1578
     <211> 300
     <212> DNA
     <213> Homo sapiens
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aaacaatata actcaaatgc ctttctacag gactacaaag ctgtctgtat caggttatgg
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 agttaaatca taatttotgg atcatgatot taaacottta attggttoca tttotacttt
                                                                        120
actetttact aacaagtate etgatggeet gaaaateeat gttgaaattt gaagtttgaa
                                                                        180
ttttccagat caaatatgaa atttatttc atttttaaa gtacaaaata tcagttgtat
                                                                        240
aatcatggta aaacataaaa ttttgctata aaagattttt aaaggctatt tgattaaaac
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       <210> 1579
       <211> 78
      <212> DNA
      <213> Homo sapiens
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ctcagaacca ctctgtcgtt tttaagcagg gtcacacact ctagctcact gggtccattt
                                                                         60
taatttctat taaacatt
                                                                         78
      <210> 1580
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1580
gccaggctgg tettgaacte etgaceteag gtgatttace egeettggee teccaaactg
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cagagatcac aggcatgagc caccattcgt ggccagttgt tagtttttga gatagtgtct
                                                                        120
ccagtttaca gatagggaga ttgaggctta gaggaggcac atagtggcag aactaggatt
                                                                        180
tgaatccaag tctgttttcc ctccaggacc caagccctta accactgtgc atttttaaaa
                                                                        240
tagccagagg aggactcatg accaccacct ggggatgtga gcaaagccag agtccagaca
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      <210> 1581
      <211> 299
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(299)
      \langle 223 \rangle n = A,T,C or G
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cgtgatggca tgtgcctata atcccagcta cttgggaggc tgaggcagga gaatctcttg
                                                                       120
aaccegggag gtggaggttg cagtgagcca agatcacacc actgcactcc agcttaggca
                                                                       180
atagagcaag actctatcac aaaaaaaaa ngagagagag agananataa agaggtntnt
                                                                       240
tgggacantt anncatnttt cctacatttt ctctttttt caaagcccan aatccttgc
                                                                       299
      <210> 1582
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1582
tttaaaaagc attttattat gtattatgaa atatttcaaa cataaaaaga tgtaaagact
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atctaccaat gactccccc ttaataaaac aaattaacct gaaggctgtt ttgtgcccct
                                                                       120
cettgattgt gcattcacct cccaacccct cgctccttgg gcaactgtta tctttgttat
                                                                       180
ttgtcattgc cttaacatta gattttttta ttactgcttt tgtaattcta atgatatcaa
                                                                       240
atggaaaaaa tattttgaat gcaactcctc ttttaatttg ctccaatttt atctgtattt
                                                                       300
```

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<210> 1583
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1583
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gccaccgcgg agctgctgca ggtgcgggtg cagagcctca cacacatcct cgccctgcag
gaggaggagc tgaccaggaa ggttcaacct tcagattccc tggagcctga gtttaccagg
                                                                        180
aagtgccagt ccctgctgaa ccgctggcgg gagaaggtgt ttgccctcat ggtgcagcta
                                                                        240
                                                                        300
aaggcccagg agctggaaca cagtgactct gttaagcagc tgaagggaca ggtggcctca
      <210> 1584
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1584
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atacaaccat cttcaatggc atttttgata gcacgaagtc catctcttat ggcatccttg
                                                                       120
acttgtgtga gagtatgett atttggteet ttaaccaaca aggtaacaga geaagggtta
                                                                       180
acacactcct caataaaagt gaacttttct tcacctaatg tatactcata cacaagacca
                                                                       240
gcatgtccca agcaatctac agtgagatct tcaaaagaat tcacggccat tccaccacaa
                                                                       300
      <210> 1585
      <211> 275
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(275)
      \langle 223 \rangle n = A,T,C or G
      <400> 1585
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ataggactga gcaaagccct tgtccagatg gaacttatgt tttagagggg aaaacaaacc
                                                                       120
ataaaaaggt aaacagtata aaatcaggaa aggataaatg tatatgaaga atcaaaatga
                                                                       180
ggacggtgat ggggataaga ggggaaggnt ttnnatnacn ncnngntnng aagngnaant
                                                                       240
                                                                       275
ttacncnntg tcgnnntntt ntgnnctacc atggt
      <210> 1586
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1586
atgggagcca tgggcagtgg tcctggctgg tgaaatgatt ctagccacgt ggcccaccca
                                                                        60
                                                                       120
gggggcaaaa caatagaaac cttcagaaat gaaacgtcac ctggctgcaa gaagatagtc
ccacaggcgc cctagagatg gggatgccaa gtggcttctc gggaagctgt aagaatccac
                                                                       180
                                                                       240
agggcattqt aagatggagg gaaatattaa gttttcttcg taaagaggtg aggggggcga
gagcagcaaa ggacactgga aaatgagaag catggatggg aagtgttgca ttgagcataa
                                                                       300
      <210> 1587
      <211> 300
      <212> DNA
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```
<213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (300)
      \langle 223 \rangle n = A,T,C or G
      <400> 1587
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                                                                         60
cgtgatggca tgtgcctata atcccagcta cttgggaggc tgaggcagga gaatctcttg
                                                                        120
aaccegggag gtggaggttg cagtgagcca agatcacacc actgcactcc agettaggca
                                                                        180
atagagcaag actctatcac aaaaaaaaa anagaganag agagagataa anaggtatat
                                                                        240
nggnacaatt agtcnttttt cntacatttt ctnttttttt caaagcccaa aatccttgca
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      <210> 1588
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1588
aatcaatatt titcaataga agtattagag giittittita tigatataaa aataacaatt
                                                                         60
acagatectg atatatagaa gttatteaaa attataeagt ttteaaaaaa teaagaeaag
                                                                        120
taggcccaat acaaactact gaatcatett ctaattteee tetaaaatat ttatagaaat
                                                                        180
atgtaagtag aaaaacattc atcctttcct cgtctaatta tgatcctgcc atattccagg
                                                                        240
cacaagagaa agctctgggg cttgagtctt aatagggctg atagtccaac caggggacag
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      <210> 1589
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1589
ctggagcatt ctaaatgtat cactaaatat agaggagttc taattctgac aggaattctg
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tgagggcact ggtagtatcc tcatttaaca gatgaagtaa tttgagatct ctgctggaag
                                                                       120
gtgatggagc tgtgatttga accetggtgc ctgattccaa agccatggct aagaataaat
                                                                       180
aattcagtcc actaaaatac ctaactttgg caagccttgg aaacagagtg cagaagatta
                                                                       240
atacagatty cccaggccag tacaagcagc tatacagaga aaataagtag gtgctaggat
                                                                       300
      <210> 1590
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1590
geoetetget teetggetga cettggtgtg geoetetgat ggeactatgt gteetettet
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ctgagctttc tgaggatgac aagccgtctt ttcaatggga ctcccttcca gacctgttgg
                                                                       120
tctcaccata ctggaatcat cataaagcct gtattgtaaa acatcattgg tgtctaaagt
                                                                       180
ttgcacaatg ctatggcccc cacattaagg gagtctgggt gagatcactt cattgccct
                                                                       240
acttetetga ecagaaaaca caagagttea tgggagacaa taataacaac aacaaaaaca
                                                                       300
      <210> 1591
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1591
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gggaattete tgccttttgg ggaacagtta cagaggacet actaaaccet tggctggtgc
                                                                        60
                                                                       120
caggecega gaccacagag ataacetggg acceaggete tgeccatggg gageteecag
ccctgtgagg aagacaggcc atcctcaccc agcacatect actgtacccg aagagagggc
                                                                       180
gcagtgactc attitttgcc gttggcatta ggtttaaaag atggttgaac gtccacagaa
                                                                       240
ggaaaaggaa ttcctggcag agggccctgc ctgagcatag gcagggaggc tgagcagcca
                                                                       300
      <210> 1592
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 1592
cttgagaatg aagaacccgc ccaggaagag ccagaaccca tcactgcctc gggttctttg
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aaqqcqctca qaaaqttqct qacaqcqtcc qtqgaagtac cagtggactc tgctccagtg
                                                                       120
atggaagaag atactaatgg ggagagccat gttccccaag aaaatgaaga agaagaggaa
                                                                       180
aaagagccca gtcaggcagc tgccatccac cccgacaact gtgaagaaag tgaagtcagc
                                                                       240
gagagggagg cccaacctcc ctgtcccgag gcccatggng aggagttggn gggatttcca
                                                                       300
      <210> 1593
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1593
gtaaatteet qqqtteeaqq eteaaqeett ecaetgtatg etecatgtta ecagetatge
                                                                        60
cttttgaacg ggagatgttg cataaataat tgttgagtat gcactttaga ttctttgcta
                                                                       120
acatcacatt tggtgaaact ataaaataat tcccatgaaa attggattgc ttaatatcat
                                                                       180
aactgatatt taataatatt taatattgct ctaaaatttc tggctaaaat gaaaatattc
                                                                       240
aaccatcagg aaggagaaac aaaactatta ctgtttgtaa acagtttatc atcagtactt
                                                                       300
      <210> 1594
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1594
acctgtaatt tcaacatttg atgagtcaga gaaaaaaaagg tttcctttgg gtcttatttg
                                                                        60
atcactattc tgttaatttt aagcaagctt gtagtaaatt gatctatttg gatataaata
                                                                       120
ggttacatga ttatcagtac tagagaccca tgtatcctat ttatttacaa aagaatatta
                                                                       180
aatateetat tttaattttt atattacage etattttgat tttttagata aaagtetaga
                                                                       240
gcttttattt taatgaatgc taagagatca gaatgcactg gcattctctg atttaatagt
                                                                       300
      <210> 1595
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1595
gttaggtcca ttttgatgtt acaggatact tgtaagtgac tttttgccat tctcttttgt
                                                                       60
tacccatggc ctttgtcacc cccttgaata tctcttttac tcagttctca ctttctgttg
                                                                       120
ttgacatact tgttgacatg tcccaccagt ccatgaaatg aaataccata tcttccttgt
                                                                       180
```

```
gttgatatta cttttgtgag tatttaagac atatataata aacaaatgta aaactttgga
                                                                      240
 aattgattet etteteatta aaaaacattt aaagggaaca tttagaatat ttgtttacat
                                                                      300
       <210> 1596
       <211> 300
       <212> DNA
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       <400> 1596
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                                                                       60
 gcttagctgt ctggtgcaga aatacaagac ataaatatta tttcgtagac agttattatt
                                                                      120
 tccttactgt gaatttagca gaatttatag aagtcttttg ggtagtaagc tttggttaaa
                                                                      180
 ttatttgttt ttaaaaaatc gcagttcatg aaacatttct acttattaaa tacaatgtga
                                                                     240
 atactatate tattettget actggteata attgttagee eteteceatg cetettetee
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       <210> 1597
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 1597
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                                                                      60
agaactgaaa gaataggttg atactgaacc cactcccaga gccaggtagc tgaaagggca
                                                                     120
ctgtgattgt tatcttacta ggaacacgtg gagtgggagt aaggcagttt tctgcagaaa
                                                                     180
240
tgtttgtttt aaattaaaac cagaaaaggc gaagacttgg agaatgctca aaattttttt
                                                                     300
      <210> 1598
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1598
gtaagccata tagtctgtcc agaccactga attcctttgt tgtaggctga acagactaca
                                                                      60
acaaatgggt gtggtataaa catagaacca gtccaatctg gttcagcttt gttagtaaca
                                                                     120
aaatgtaaca aaatgatgag tcgtttttca gtgcaatgga cccccagggt gcaagtcaca
                                                                     180
tatcgctgga gcattaacag atgaacaaag catgcccaat tcataaccct tgggtggaat
                                                                     240
gaaaaagtca actacaggta gaacccaagt actcggatca aggaatgggg actatgctgg
                                                                     300
      <210> 1599
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A,T,C or G
      <400> 1599
agtggctggg accgcaggcg cgcgccacca cacccaacta atttttgcgt ttttttgtgg
                                                                     60
agacggtgtt ttaccatgtt ggccaagctg gtgtcgaact tctgacctca agcgatccgc
                                                                    120
ccgcctcggc ctcccagaag gctgggatta caggcgtgag ccaccgcgat tggccgcagg
                                                                    180
atcatagttc actgcagcct cgagcagcca cttccggggc agctcctcca ttctctgagt
                                                                    240
ttgagacttg ctctcatctc agatcccttc agagctctnc tggctgaacg accttgggaa
                                                                    300
```

```
<210> 1600
      <211> 278
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(278)
      <223> n = A,T,C \text{ or } G
      <400> 1600
agattneece entnneetne nneennggne aenaaanggg aantntnnnn nnaaaaaaaa
                                                                         60
aaaaagaggt gggtggatta cttgaggtca gggtttgaga tcagcctgac caacatggtg
                                                                        120
aaaccctatc tctactaaaa atatagaatt agacaggcat ggtagcgcac gcctgtaatc
                                                                        180
ccatcttctt gggaggctga ggcaggagaa tcgctagaac ctgggaggtg gaggttacag
                                                                        240
tagccgagat cgcgccactg cattccagcc tgggcaac
                                                                        278
      <210> 1601
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1601
actggttaaa tagcccttga tgacttttca tgtggcatga gagggatatg cttataaagc
                                                                         60
ttaattetga tattateete ttaetaeeta eagtatgttt tgeaaaaate agteeaetta
                                                                        120
gcaaactaat ctttgtaaag cagtcagttt cagaagatac tttttatcaa aaaagatggc
                                                                        180
aggtttaaca ttataccttt tggtttttgc ccaacatttg atttaatcta aagcaagaat
                                                                        240
ataaaataat tttaagaage atataattte ttttgataaa aagtaacaaa aatttaatge
                                                                        300
      <210> 1602
      <211> 298
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(298)
      \langle 223 \rangle n = A,T,C or G
      <400> 1602
tttggtcagt tgcaccttct gggtcactgg tagcgcgcgg gagccgggtg gggcctaggc
                                                                         60
gatgateegg cattaaggag etgggateat ceteegtete aggtggtttg gggaaagtgt
                                                                        120
aggggcaacc aaagateate ggettgaeta ggeeetttge eetgaacete atgaagaaat
                                                                        180
gataggaggc agacatatgt gcctaaaaag agcgttgagc tcagacagga gcaactcggn
                                                                        240
ggnnngeggn ngneantttg atttgngnen tenneggeag neneateene egaateae
                                                                        298
      <210> 1603
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1603
caaagatcta atgagtcaca ggatggggga tgaaattggg aaaggtctgg attagcagag
                                                                         60
ttgctgcaga aagaagtaga ggggaatatc ttagaaggca cttggacaga atgggggtga
                                                                        120
tataaaagat gtatgctgtc atttttgttt tggctcctag aaaatatagc agaaagtgag
                                                                        180
aatttgtgcc atacatectg ttctgcaect taatatggaa gtttgccttt ccacacgagt
                                                                        240
```

```
cttccttcac aattaacctc taatttttt tttgcagttt tctccagatt ttggaagatt
                                                                        300
       <210> 1604
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 1604
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gctgaaagac taggaaaatg tagtgcagag atggccggag gagagtctgg agttccaaat
                                                                        120
agttgcctgc tagggaaggc agggagaggc tatgccgtga aggatcctcc atacacttta
                                                                       180
aggattttgg gttttactct gtatgtgatt tggagctcct gaaggatgtt aatgaaaaga
                                                                       240
gtgataggat tggatttgct tttggaaaga tctccatggt agcacgttct aaaatgggtt
                                                                       300
      <210> 1605
       <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1605
ctttagaggt aaccagtatc atgactttaa tggtaattat ttatacaatt tttaatataa
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ctttgtcact ttacgtgtat tcctaagcag tatgtttact tttttcgcct cattttaatc
                                                                       120
tttatgaatc gtgtattctt tcttcctttg ctcagcatta tgttttgaag agttatccat
                                                                       180
gtagttatgt gtagttttat ttcattcatt tttgttatta tgtattatcc ctttgaatta
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tctaaaatac gaaatgctta cagtaattgc ctcatggggt tgtttggggt gactaaatgt
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gccaatttgg aggttattqc cattctgaga tgagaagcag taatgacttg gtgtttattt
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gcacaaggte cetgetetgg agattetget teagtggtgg agacagaaaa taaacagttt
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cccgtcacca attttccttg gaattggaca gatggcagcc accataatga tactatatgt
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	J
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ttttttt	129

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cagaaagaat gaaacaggaa agaaagaaag cctattgaag gatataaaat ttctgtaaac
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aactggaget tagteecact gaggeecect gaggaactge geagaatgta agacagagga
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gtttagttga gaaaacaaaa tactaaaaaa tctgccacta gactttttaa gtcaaqaqtt
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catagority cagcactgty ttcctggcgg gagtggcatc tgtctgcatg tctgaaaatg
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agaaaatgct caatcttact tataatttaa gaactacaat tcagccaggc gcggtgqctc
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tattatttta taacttgctg tttcatataa aattatcatg aacatctttt gtgtcatgac
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aatctaattt tttaagatgg aattattcta gttgttggat ttacacactg tagcattatt
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tttgggaact accaaattat tccagtttgt catcataaag tagttgctaa agcaataaaa
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gtegaatgee aggeatteta actteagagt ceatagtett aaccettgtg etattetett
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taacttetga tetgtgttet tttgtaaage atgtetettg taaacageat atagttggte
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agtttgggtt tatctgatgt ttctgcctag attcaagtta gacatttcaa qtaqtactgt
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aagaaacaga gatgactctt tctgtataac tcaaattctt aaaagaaacc cttgatatat
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agtgtcaatt atatgaactc tacctcaggg tacctaaaaa aagaatgttt ggttacccga
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atgaggggga ggttttcctt tagagagaag tattggggcc aacaaatgaa aaaggaatag
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<213> Homo sapiens

<210> 1638

<211> 300

<212> DNA

<213> Homo sapiens

<400> 1638

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<212> DNA

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<212> DNA

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ttgaggggga ttgtcagaaa atcccttttc tctcttacgt ctaactgact agggaacaat 240
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<211> 300

<212> DNA

<213> Homo sapiens

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<400> 1641

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taatgagcag gttagcactg tggaccacca cgctcaatcc cactgagacg tgaggaagct
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      <212> DNA
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aatttaaaga cctctttgac ctgaacagct ctgaagagga cgacaccgag ggattctcgg
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agagaggat actgaggccc ctgagcactc ggcatggggt gaagacgatg aagaggacga
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gtgctgggtt attctgatgc acagtctagt ttaagaacca ctactttggg taaacgtttt
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gactgtttaa agtttatggc ggtgaagtgg gcatcttcaa agactagtac ttacacagtt
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tttcccaget tecettgaag ctagagagge caegtgtetg agtectggte agtgatgttg
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gggaagtgaa tgtggaactg ctaagcctgg agccggagca accttcctcc tgcagtcccc
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caacaagctt atagagataa					180
gctgcagcca gccaacaagg aatggagcac atactatagc					240 300
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ggcggccggg gcagggtgtc tgctgcctcg tttatgggat ttgctccgcg tctagcacac
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tgctgcctgc agtgctcctg tcccctgcag tggctactct gggcctacgg gcctaatcct
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gaaatgcctg ggtttttttg gtttgtttt gtttttgttt ttttatcaaa tcctgcctga
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ctgtctgctt gttttgccta ccatcgtgac atctccatgg ctgtaccacc ttgtcgggta
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gcttatcaga ctgatgttga ctgttgaatc tcatggcaac accagtcgat gggctgtctg
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ccagctgagc aaggagagct ttgcctcttc aggagactgg aagttgggga agactccaac
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aggettgtgg teagaagete aggagaetgg gaaggaaaag tgaatttetg aggagteeta
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gttcatttca ttaatttgtt caattcttta acgtatgttt attatggacc tactatgttg
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aaaatacaca cgcacacaca cacaaatgga catttacccc actcctgctt ttgtgctatt
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gtggtcatgc atagtatttc ttttttgctg ttgtttttct tgttgttttc actgtcatac
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aggtatttat gatggaaaca gaatcagagt ctgaccttcc tgacttgaag tacaaggttt
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      <213> Homo sapiens
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ageagggetg ttgtatecat gecategage tgaateette tagaacaetg etagecaetg
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gaggagacaa ccccaacagt cttgccatct atcgactacc tacgctggat cctgtgtgtg
                                                                      180
taggagatga tggacacaag gactggatct tttccatcgc atggatcagc gacactatgg
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cagtgtctgg ctcacgtgat ggttctatgg gactctggga ggtgacagat gatgttttga
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<213> Homo sapiens

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                                                                       120
aatgttgaaa attatatagt tetettaatt ceccacetet aactatattt ttgggttatt
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tctttaggaa cagatgeeca qqaqtcatat tactgagaat ctagaaatct tttgcaaagt
                                                                       240
tettgttata ttgccaaatt getteecaaa agggttgtte taaaccataa ttteaccage
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aaggcaactc ttaactgaca atatagttag tatattctgg gccttcatct tcaaaattag
                                                                       120
taggtagtat ttattgagtg catatcatgt gccaggcctg gtgctgagtg cttacaatga
                                                                       180
                                                                       240
tcattttata tatgggaaaa ttgaggctca gcagggtcaa gtgccttgta agaggtagca
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                                                                       120
aacccagate tgcccctgct tagaggccgg cccctctagg agacagcatg tggggccacc
                                                                       180
cagagatgca ggactettet gttetgeeet ategeageag agaggeeate eetggagetg
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gaaggtgcag actgggaatt gctccttctc tgaattgcta gctcctgcta atgcctgcat
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                                                                       120
tattctttat tgcatagctt tgaaaagaga ttttgtatta cccaaacatt tattttaaaa
                                                                       180
aggeaccccc atatatecat cactegaact gtacatttet aaatgtacat tgacetttgg
                                                                       240
tatattagtc tagcaatcca gattttgcct cttgttaagc gtatcagggt cctggcagga
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aacctcaaag agccttctgt attgagtaag cattctatgt ctttttttaa ttgtacttgt
                                                                      120
attagatttt taaggeetat aateatgaaa tateaetagt tgeeagaata ataaaaagaa
                                                                       180
ctgagtttaa ttatgaataa tatgtaagct aggacttcta ctttaggttc acatacctgc
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aagagagatg acattatttg gattttgata ttaaacagct aggttatctt aggtaaatac
                                                                        120
ataagctttt gtgggccaca gtttcttcat ttgaaaaatg aagttggact agttttgcag
                                                                        180
tgcttaactg cacagagcat tagaatcacc tggggagact tcataaacta cacaaccagg
                                                                       240
ggtgtacctg agatcaaatg aatctaggcc ttctcaactt taatgtgcag acaaatcacc
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      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
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ctgctttatt tttttatgaa gaagagagat gacattattt ggattttgat attaaacagc
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taggttatct taggtaaata cataagcttt tgtgggccac agtttcttca tttgaaaaat
                                                                       180
gaagttggac tagttttgca gtgcttaact gcacagagca ttagaatcac ctggggagac
                                                                       240
ttcataaact acacaaccag gggtgtacct gagatcaaat gaatctaggc cttctcaact
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      <210> 1662
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      <212> DNA
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tattatattt acctaatcta tttaatctat atcatgttat gcacatatat atgaaacatt
                                                                       120
tttgagtgga aaattttatg gaaaaagtat tctatataag gtggattagt aatcctcttt
                                                                       180
tgaaaaaaaa ttctagttct tctcaattgt gaaagatatg tctaagcttt ctaacaaaat
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gaactccaaa cagtcttaga tgtctgcctc tttttaatca tttagtgaaa taattggttt
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      <211> 300
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ttggatttag ggcccatcgt aaatccagga caatttcatc ttgacatccg taactgattt
                                                                       120
tatctgcaaa gtctctattt ccaaataaag tcactttctg agatttcagg tggacagtta
                                                                       180
tttgcgggga tagtattcac cccactagat tcagggttgt gggaagtgtt gcttactaaa
                                                                       240
ctctggttca cggagctgcc aaagaaaaga gatttatttt taaacctagg agagaaggca
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      <210> 1664
      <211> 300
      <212> DNA
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<213> Homo sapiens

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gcagtggtgt gatcatggct cactgcagcc ttgacctcct gggctaaagc aatttgcctt
                                                                       120
ceteggeete teaaagtget gggattacag gtgtgageea etgeaegtgg cetettttta
                                                                       180
qtttattttt tccaaaatta ttttqaaaag tttcaaggtg gaatgtagtg acaccatcac
                                                                       240
ggctcaccga agacttgacc tcctgggctc aggtgatcct cccacctcag cctctcaagt
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      <211> 300
      <212> DNA
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      <40.0> 1665
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aggettecaa gacaccacae acaactggtt tacctetete tgtetetete ttttttgttt
                                                                       120
cetttgetga etetttetea geatttetge tagggtteag tecatggett cetteacatt
                                                                       180
totgtotoac titotocott aatgitgota totagtottt taatittatt tattiotagt
                                                                       240
tttaaaattt aattttaaaa acttaatttt atttaatttt tgagacacag tccttgtagt
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      <211> 300
      <212> DNA
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      <400> 1666
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ctttaatcct atattagagt ctataggtgt gtctttctta tagcaatcct gcactcacat
                                                                       120
aaaaactgga ttttcaatat aagatcaaaa tgtatttcac aaaaaatgca tctttatatt
                                                                       180
tggttacatt tctcctgact gaatggtgcc atgtacagtc tgtgtaagtt atagaaaacg
                                                                       240
tttgccaact cgtagtctac cattttggta tttggttct atttggttcg tctggtcttt
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      <212> DNA
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      <400> 1667
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cattgcactc cagcctgggc aacagagcga gactcttgtc tcaagaagaa gaaaaaaaaga
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aaaagaaaaa gaaaaagaaa aaacttttga tgccagtagt tctgtgaaga caacaaaaaa
                                                                       180
gcagggcttt gagagagagc aatgagggca taggtggctg attacatcag atgggttaat
                                                                       240
ctccaagtga aatttggggg aacggtgttc caggcatagg gaatagcaga tgtaaaggcc
                                                                       300
      <210> 1668
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1668
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cctcggccac ttacagctat gtgatctctc tgagctcagg tttctcatct gcaaagttgg
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gttaataata caagttottg otcattgttt tgttgggagg agtgaatgag ataaatcacg
                                                                       180
taaagcacgg accacagtga ctggctgata ataagcctca gtggatggtc gcccttagaa
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ttattttgta accetttget tttgaggeag etggtgaget etgtageete agagattaet
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cggaggggat ggagcaggag gaatcctgaa aaccggactg ggagagatgg ggccgagtgg
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acgatgeeca gtaceagegg gegtetgaga etgaaacatt aattetgaag aagaagaaac
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tagacagtca gacctccagg actaagatga agtgagccga gaggagatcg tatcataaga
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atgcttctgt cgttagccgg gtgcagtgct gtgtgtatct agttccagct acttgagagg
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      <212> DNA
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gcaaaactct tggactgatc atttgaagtc acccctctgt gtcttcttgt gaaatggctt
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gggcgtctct gggctctgac ttgctcatct gggaagagat ggggtagagg gagttggatt
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ataaatcatg cttcactcag tcaacagaat gctactcagg cactaaaaat gatggcgtag
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ccctacgtat tctgacatgg gaagatggcc acaatatctt attatgtgga aaaaactagt
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      <210> 1671
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1671
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aaatgtcatt aacttcattt taaagatgaa gaaactcagg cacaaaaaca gttatcaaat
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tgccaaaagg gcacatagtt ttagaaatgg gactgaaatc cagctttcct gactcaaagt
                                                                       180
cctatgttaa tccaccagtc atttattgag cttctgctat gggctatgta ttgtgctgaa
                                                                       240
tgtagaccaa cacagaataa ttcctaaatc ttacagactt tttcatagta ccctgtctgg
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      <210> 1672
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      <212> DNA
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gtcaaccacc actgggagct cctgcagctt ggcaagctca ccagcacccc agtgacagat
                                                                      120
cgaggaccac atctcctcaa cgctctgaac agttataaaa gccggttcct ctgcggcaag
                                                                       180
gagatcaaga agaagaagtg catcttccgc ctgcgcatcc gcgtcccacc caacccgcca
                                                                      240
gggaagetge tgeetgacaa aggaetgetg caaatgagaa cagegeetee tetgagetge
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      <212> DNA
      <213> Homo sapiens
      <400> 1673
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cctacgtgac tcatgcatat taaagtttgg gaagcactga cttagattac cttttgagaa
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ttccagatgg gtcagaaacc agacagaaat actcagtagt gagaagctat ggtgtatcag
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aagctgttag gcatttcatg gtttggtagt gagcaagaca gatagttttc ctgtattcag
                                                                       240
cgacttagtc tagagagaga caggatggaa ttaagtgttt aggtgctagc caaaagtaaa
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      <212> DNA
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      <400> 1674
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agacatgaag tttaacaatg gacaacagtt agtacagcta attgtgaggt caagtaattg
ttaqacataq qqqaaqqctt tqttccacaa tattatatgg accactgaac aagaatgaca
                                                                       180
gccctttgtt atcacttggc atatgaaaag tgttgtgtgc atagtttgtg ttaatttttt
                                                                       240
atgtgcataa aaatgtgatt ttaatttata tgctctgaag gataattcag ggtatagtta
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qtaaqttaaa ttataqtcct aaqqttqaat gctaataaag acagaataca agtccaatat
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attggactca aaagccctca cttaactatg gtctccatgg gcttcccttg gctctctctg
                                                                       180
ccttttttta tttttctta ttgcttgagg ccctttctgg aaggtaagtc tggattatct
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                                                                       300
acttcacact gttttagaga agacttgtgg tttccattta ccccttactc cctccgctcc
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     <211> 300
      <212> DNA
     <213> Homo sapiens
     <400> 1676
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agtcactaag totagootat attcaagggt aaggagagtt aagctccacc tottaaaggg
                                                                       120
aaaatttata gacattttca aatgactaca tcacttaacc cctcaccatc tgccctccca
                                                                       180
ttgctagcac ttgatgacta gcccttgctg ggctttacat gaacagatgt ttcccaaagt
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tataaaatta gtaccactaa aatgtatcaa atgttaagcc attctgtggt atgtcatagt
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     <223> n = A,T,C \text{ or } G
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acaaaccagc tgaatcataa aaacaaatga ctagttactg ggagggtttt ctctctttct
cattattttt acttctacca aagtaatgtg cacatactgg taattttatt ttattttaat
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tttcaccaag ctagctaatt ttctttcttt tttttttgng naggngggct gtcggccttt
                                                                       240
tgtcgaggnt gatctccaac tcctgncctc aancanncct tccncttggg cctaccagag
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      <400> 1678
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atttggggga agtgtagtga ggaggagccc agaggacccc aggggagtga ggagggagaa
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cttggaaggg tgcagcccac ttccagactc tcccctctcc cacccttcta ccctgtgaag
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ggaaatgagg gctttagttt cctgggcagg gaggggcagc ttctgaggtt gccaaaggcc
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cccactggat ggaacctgtt agctgctcct ctccgcagcc agaaatgctg ccggctgcac
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      <210> 1679
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1679
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gagccaaagg gggccaagca gtgcttcaca cctgtaatcc cagcactctg ggaggccgag
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tctctgaagc ttaaaaccta ggattcatcc ttgactactg tattctttac aatctactcc
                                                                       180
taatgcatta gcaattcttg ctagctctac cttcaaaata tattctgaat agactatttc
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atatttatgt aatgggaaag gatgaaaacc cacatgtagg atgagagttg gccttgagcc
                                                                       180
tttagcgttc ccgtagtttc ttttatttat ttatttattt attttgagat ggagtctcac
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tgtcgtccag gttggagtgc agtggcgcgg gcgcgatctc ggctcactgc aggctccgcc
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      <400> 1682
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gctagagact agttcctatc tgtgtgacag catttttaat ttaacaggac cgcctttgat
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gttcccaaat atttataggc agctttagat catttcagtg tgtgctttct ttttcttctc
                                                                     180
tetetetete tetetttaa etggageaaa agttetteet eatgeaacag eetteettt
                                                                     240
atcctgttta gtttattttt gtttcctttg cagctttggc gaaggetgte tggctgcatt
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1683
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                                                                     120
acagcaagtg caacagccct qagacaggat qqqcttqtca gtttgaggag cagtgqqaqq
                                                                     180
cctgaaccag gttacatggg gcccagccag tatqqccacq actttgtgtt ttatccaqaq
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tacaaaggag cctcactgag ggacaaggga agtggcatga tgtgacccgc atattaagag
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      <213> Homo sapiens
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gagecatgta agtatetgga tggaaaacat tacaggegga gacagtggtg tgtgeaaagg
                                                                     180
ccctgggaca gggtcacccg tgttaacatg gcgccatgag ccagcctctc aggaaaaggg
                                                                     240
tctcatgaac aaatgaggaa agcaagtaga ggtagggcag ggagggagag gcaaaggaat
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
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                                                                    120
aattttaagt gtacatatcc tggctcctta aatcctttac agatttaaag tgcagtcagt
                                                                    180
240
ttttttcttt ctntnaancg gantcgnnat ggggttggat nntttcaang ggggggttaa
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      <210> 1686
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      <212> DNA
     <213> Homo sapiens
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agatgegege cetggtggta gaetggetgg tecaggtgea egtaggagta cetgggtetg
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gctggtgaca cactttatct ggcggttcac ctgcttgatt cctacctgag cgctggccgc
                                                                    180
gtgcgtctac atcgcctgca gctgctgggc gtggcttgcc tgtttgtggc gtgcaaaatg
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gaagagtgcg tgcttcccga gcccgccttc ctctgcctcc tgagcgcgga ctccttctca
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<210> 1687
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      <400> 1687
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cccttctgcc acgattgtaa gtttcctgag gccttcccag ctatgtggaa ctgtgagtta
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attaaacete ttteetttat aaattaeeea gteatgggea gteetttaea geageatgag
                                                                       240
aatggactaa tacactcctc aaatgttttg aagattgttg caccttggaa ctaccagtgt
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      <210> 1688
      <211> 300
      <212> DNA
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      <400> 1688
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cataggatag acattcccat ttcaaaagtg agaaattggg ccaggtgcag tggctcacac
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ctgtaacccc agcacctgta atcctagctc cccaggcggc tgaggcagga ggattgcttg
                                                                       240
agcctgggag atcaaggttg tagtgagcca tgattgcgcc acctttattg gaaactttta
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      <210> 1689
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1689
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tcccgcgaga caggtgttgt ttttaatgcc catctcacag atgaggaaaa gatctcaaag
                                                                       120
taccttgatt atttacccaa agttcccgac ccaggccttt aaaacttttt atgcatgcac
                                                                       180
cgcctcttga ccacatcaga caatcaccac aaaacgatgg gctgacagtt actagagggt
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      <211> 300
      <212> DNA
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cctcttccta gttttcccta agtctgcaga agacaaagat cctgtttcca ggccatgaaa
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ggactgaagt aaatattgta aataagtaca gctgaccctt gaacaacatg gaggttaggg
                                                                      180
gttcagttga aaatctgcat gtaagtggac ctgtgcagtc caaacctqtq tttaactqct
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      <210> 1691
      <211> 300
      <212> DNA
     <213> Homo sapiens
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actitiquat gcattiatta titicattiqt tattattiat gtattigatt tatticititg
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tgaggtagga tagaatetea gteagatett tgetgttagg ataccacaga etggataaet
                                                                        240
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      <212> DNA
      <213> Homo sapiens
      <400> 1692
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acteceetet atggtgetea ggaaagetgt tegttgagag atatetetet acagtaacte
                                                                        120
tactatgaaa ccacccaagg tgagggtaag gatgctgctg cttagaaaga gatgcagaca
                                                                        180
aatgtactaa tgaaggetea acacagetet tteaaggeaa gacaggteaa gaggacaaaa
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      <213> Homo sapiens
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aqaaacaaaa qcataactat attatttata ttacaaaaqc aatctttaqa aaaactaaaa
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ggggtatata agtattgaga ggagaggaaa aggaatgata tggtatcatg aggtaatttt
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tgatcaatta taqtaqqaaa taqacaatat ctaaaatgga taaagggaaa atggcaatat
                                                                       240
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      <210> 1694
      <211> 283
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(283)
      <223> n = A, T, C \text{ or } G
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atgactttte tetageactg tecagattge aggtgtettt cetgatgega tatggggeta
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tcccttaccc caattcttat ttcacqqaqa aaaqaaaagc aattttttt tttttnnaa
                                                                       180
acanagtetn attttgtene enggntaaag gneagggnea nnatntnggt taanngnane
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ntnngcnttn ggggttaang cnattttcnn gcntaancct ccc
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teccetecte geogecaceg cecaggaceg ceggeegggg gacgageteg gageageage
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caggtagaac tttagacttc atagcactga attaacctgc actgaaagct gtttacctgc
                                                                       180
atttgttcac ttttgttgaa agtgaccatg tctcaagttc aagtgcaagt tcagaaccca
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tetgetgete teteagggag ccaaatactg aacaagaace agtetettet etcacageet
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<210> 1696
      <211> 300
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atataaaaat ctttttttaa aaaacatgac atttgaattg aacatgtgca gaacccctga
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agtatgtetg agaaaceeta ggttetgtgg catatgagat gaaaaceaet gacaaagaga
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accagatatt acatatgttc actgcatttt cacatcaaga aggcttggga aaaqqqctag
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      <210> 1697
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      <212> DNA
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      <400> 1697
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gggtggatca cttgaggaat aaccaggcca tacggagtta ggagctgaag ggacacgatg
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agaagtgacc agaaggtaag agtgtgagcc ctctgtcacg cccaqataaq cqcaactaga
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ggactccttg gtctagtggt aacgccagtg cctgggaagg cacctgttac ttaagcggga
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aagggaatet cetttteeet ggaggaatta gagaacaete tgeteeacea ettettgtgg
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      <210> 1698
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1698
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ccagtcggaa aggatagact gcacacctga ccaggaggtg accgaggata tctgcagatg
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gcaatataag tgctgctggt cgcctgtggc agatgccaat gtccctaggt gcttcttccc
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ctggaactgg ggctatgaag ccagcaatgg ccatacaaat acaagcacag gatttactgc
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ccagttgaaa aggttgccat caccatctct gtttggaaat gatgtcgcca ccaccctttt
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      <212> DNA
      <213> Homo sapiens
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cggtttggac tgagagtgag cagagaagcc tgttagagag tttcaaataa agatgggaca
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tgatctggct gatgttcttg gaggacatgc tgctgctgtg tctcatgaga atagactgaa
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gcggggaaga gtggaagtag gaaaaccagt tgggaggctg ttgtaaccta ggtgagtgag
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120

egttgaggte ceacetgeee cactgteeat agaggeegtg acettteetg cetecaqqta

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aacacataag tgcttcccgg gctgacttcc gatgtgtatt aggatcccag tgagacttct
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tgggcggatg ctgaaaacaa gcttaaattc tqqccccaac aatacagaqt qaqccaaqac
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ttaatttcta gtgtcaacag tgccgagagg taggggcttt gggaaagttt aatggattaa
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tgcccacata taagggcttg ttggagggaa tttgggctct ttgttgcccc ttccatcctt
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tetaceatgt gaggaegeea caeteeteee etttggaaga tgeageaaae aaggtgeeat
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aatcatctgg caagaacaaa tcctatgatg tgcgaattga gaactttgat gtqtcttttq
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gegatagagt actgetgget ggageggatg tgaacetgge atggggeege egttaeggge
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tggtggggcg gaatgggttg gggaagacaa cgttactgaa gatgctggcc acccggagtc
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gtctgatata tttggataaa aataaagaat tqcttttctt ctccttttqc tqattttttq
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acacatcatt ctaagcaaaa tcatctcagc ttcgtatatt tcagcctgaa gtacttctta
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      <212> DNA
      <213> Homo sapiens
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      <221> misc feature
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Cagaaggaaa ccgagatgct tcccgcagcc gtggacgatt ctccaggact ctttttttac
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cttgagcact tgcctcgtga gacttcatag aacagtggtt tactgtcccc cccttctcac
                                                                       180
ctcctcattc tetetggetc tttctgtctt cetettetca cectectccc teccettage
                                                                       240
catcacttct gggaagtann nnnctgacct aaaggtttta gattcnc
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ctttagtgca taattctaaa cggtgttttt gctataaagg gcatcattgg gataaatggt
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gaaacttgaa tgggatctga gaattacatt taacttttct gtaactttgt gcttatttca
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      <212> DNA
      <213> Homo sapiens
      <400> 1706
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aggtcacaca ccagtgctcc gagtgtggtc ctcacagcac ctgcatcaac atgaggttgg
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gatttgatta aaagtggatt tctggggcca cccacattct gaatctaaag ttctgggtgt
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      <212> DNA
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tttacattgt ccaggtgagg gagaccacct ggggagacag ctgtttagaa acaaaaggaa
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agatggtttt tgtttgtgtg gctcagtttc aaagcttaat tttccctttt tttgtagtga
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gtttgtgatc ccaagatttt attttccttt tacaatcaca tggaatggca cccatttatt
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     <211> 296
     <212> DNA
     <213> Homo sapiens
     <400> 1708
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gcatatatgg ggagtgtctg gatggctgga aaattccatt ttttgaccaa gatgtggtaa
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acacggggag taaagttata attttttctc ttactgtgct tttaggtttt qttqctttct
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gtctgtatgc tgtgttccac aataataaaa atatttaaaa ggcaaaaaaa agtaaaataa
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tgaatataaa attacactga aactacatat tctcatagat agaattgtaa ttatta
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     <221> misc feature
     <222> (1)...(226)
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<223> n = A, T, C or G<400> 1709 gaaacactga aatgtatact tttaagtggg tagattttat ggattgtgaa atacagcaca 60 aagctgagaa aaagggaaca gaaaattatc aaagtcaaac cctacacaaa gttattagaa 120 gagaaaaaca ctacagaaaq acacgctcaa aaaaacagaa caaatctgaa acatggtaag 180 acceptetee acaaaaaana naaaaaaaaa angntttaaa aaacnt 226 <210> 1710 <211> 300 <212> DNA <213> Homo sapiens <400> 1710 agcctctgat catcaagaca tggcagaata caaagacaag tcacaggcta gctgaagata 60 tttgcaatac ataaatccag caaagactta tatccagagt atataaagaa gttctgtaaa 120 tcagtgagaa aaaagacaaa cccccaatt aagaatagtc aaaagatttg aacaggcact 180 tgacaaaagg ggggtattga aatggccaat aaacacataa tcattactta tcacagaaaa 240 gcaaattaaa aacaqaaaqa qataccacaa cctcctcccc aqaatqtcta tatqqaaaca 300 <210> 1711 <211> 300 <212> DNA <213> Homo sapiens <400> 1711 gaaacagttg gctattcatc atcttcggca cttatgacaa cattaacaca gaatgccagt 60 tcatcagcag ccgactcacg gagtggtcga aagagcaaaa acaacaacaa gtcttcaagc 120 cagcagteat catetteete etectettet teettateat egtgttette ateateaact 180 gttgtacaag aaatctctca acaaacaact gtagtgccag aatctgattc aaatagtcag 240 gttgattgga cttacgaccc aaatgaacct cgatactgca tttgtaatca ggtatcttat 300 <210> 1712 <211> 300 <212> DNA <213> Homo sapiens <400> 1712 ctaaaagaaa atttatattc taatttttat ttgttgccta tgtttcataa tttttaatct 60 aaggtetttt tagaaatgtt tgttagteca aatgagtget cacaatatgg taaacacatg 120 ggagatttct tttttttaa attttatttc catacgttat tggggatcag gtggtgtttg 180 gttacatgag taagttettt agtggtgatt tgtgagattt tggtgeacce atcacetgaa 240 cagtatatac tgcactccag cctgggcaac agagcagact ccatctcaaa acaaacacac 300

<210> 1713

<212> DNA <213> Homo sapiens

<400> 1713

<211> 300

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<210> 1714
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       <213> Homo sapiens
       <400> 1714
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ccagctgctg ttcctcccca tcacccagcc accggattct ccattcaccc ctttctctca
                                                                        120
cccctggagc cccgtgggtg ggggcagggc atgagttccc cagtccccaa ggaaaggcag
                                                                        180
ccccctcagt ctccctcctc ctcattccct tccatctccc tcccctctgc cttttaaacc
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catecectec gattececte etececete tetecetggt gteaactega tteetgeggt
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      <210> 1715
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1715
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ttagtccagg atgatctcat ctcaagatcc taaatctgat tacaattgca aagatccttt
                                                                       120
ttccaaataa ggtcacatgc acgtaagttc cggggattat gcttgcgtgg gacacatctt
                                                                       180
ttttgaggcc accattcaac ccactacaaa atccaactga agcccagcga agtggctcat
                                                                       240
gcctgaaatc cccgcactgt gcgaggccaa ggcaggaggg tcacctgagg ccaggagttc
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      <210> 1716
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1716
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tgtgtctcaa ataaataagt aagtaagtaa gtaaatatcc tgtaggtatc tatgtgactc
                                                                       120
aaggctagtc actttcctat ctatgctcca gttttctcat atttgagaca agagacttga
                                                                       180
ttttagcata aaggtgagag ttgaagtaat gagtgtgaaa gaggaaaggg agaaaacata
                                                                       240
cagagaagag cagaaaacac aagcagctgg taggcagaga atgcagaaat tcaagttaga
                                                                       300
      <210> 1717
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1717
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aatggctgtg ctgaaaatat atttgaggta aagtaagcta gaggcagggg tattgaaatc
                                                                      120
aggctaagag atgtttgtgg tttgaattaa gtggtagcag gaggtgttaa gaattagtca
                                                                      180
cattgtgtat gtattttgaa ggtacaacca acaggatttc caggcaagat agagtgtgat
                                                                       240
gtgaaaaaga aagaaaggag tcagtagtga ctcaggagtt tgtctgagca tccgaagtgt
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      <210> 1718
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1718
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atgtgataag cattgggtta ggcactagaa aatagtgctc aaacaacaac aacaacaaca
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aaacatgatt cttgtctcaa agaatgcaca atgttgqgga aagacaacta aaaagtaata
                                                                       180
aaacataaag tttgaaggat attatgatag aggaattata ggatacgttc aatcatttga
                                                                       240
aatttttgaa tgtcatcctt ttgggtggag caccgagagg gtttgtgaaa aagcttcccc
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      <210> 1719
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1719
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gacttgacgt ctccaacctg tcccagtatt tcagcccagc ctcggtgtcc agcagcccgg
                                                                       120
ecogogogot cotgotggto ggogtogtoc tootggoota otggttottg toootgacoo
                                                                       180
tgggcttcac tttcagcgtc ctgcacgtgg tgttcggccg cttcttctgg atcgtgcggg
                                                                       240
tegteetgtt tteeatgtee tgegtgtaca teetgeacaa gtacgaggge gageeggaga
                                                                       300
      <210> 1720
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1720
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ggggcagaga gcggcctccg agggtcacct gaatggttga gcatggaccc tgttgctacc
                                                                       120
cacagetgee atetgeteea geaactgeat gageagegaa teeaaggeet getttgtgae
                                                                       180
tgtatgttgg tggtaaaagg agtctgcttt aaagcgcata agaatgtcct ggcagcattc
                                                                       240
agccagtatt ttaggtgggt attttagact tcattctcct agctgtgaat taagggtaaa
                                                                       300
      <210> 1721
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1721
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tetggetggt catagtgget cacactttta atcccagcac actgggaage teagtcagaa
                                                                       120
ggatteettg aggecaggag tteaagatea gtetgggeaa cacagaeece atateteeaa
                                                                       180
aaaaaataaaa ataaataaat aaaacagtta tcaggctggg agtggtggct catgcctgta
                                                                       240
atcccaccac tttgggaggc tgaggcaggc agatcatgag gtcaagagat caagaccagc
                                                                       300
      <210> 1722
      <211> 276
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(276)
      <223> n = A,T,C or G
      <400> 1722
ggaactccag gettgecact acceaaccc ageetggete tgaaaatgtt aattgactgt
                                                                        60
caggacggct tggtggggg ggggcgaggt tgcagtgagt gagccaagat cacaccactg
                                                                      120
cactecagee tggtgacagt tegagattet gtetaaaaaa aaaaaaaaa anntnggnee
                                                                      180
tttaaanctn tagggngncn nnttacgtaa atccanacnt gataanannc nttgatnagt
                                                                      240
ttggacaanc cacaantaag aangentnga aaaaaa
                                                                      276
```

```
<210> 1723
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 1723
acagagcgag actccagttc aaaaaaataa ataaaaatta aaaaataaaa taaaataaaa
                                                                         60
aatttactag gcatccagca ttcattaagg agaataattc agttaaggag gaaaagaatt
                                                                        120
ctgggattct gggaatttcc ttaaccaata aagagtatgt gtgagaaacc tactgctaac
                                                                        180
atcatactta atggtaaaag tccaaagatc agcaaaaaga ggatacctgg tctaaacact
                                                                        240
tccactaagc attatactgg aagttctagc tagtgcaata aatgaaagag tacaaagtat
                                                                       300
      <210> 1724
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1724
ggaagggagg tttaaggaag agactgtgga cagaggtgtt agggaaggtg tcagagaagg
                                                                        60
ttaaggagec aacatggate atgggggtgg tacagtgttg ccagggetgg ggaggattgg
                                                                       120
ctgcagtgtg gggtacccag ccgctgccat gtggagaggg acctgtcact cctgctgtga
                                                                       180
actetecett ettetgeeet etgaceteet getggtgeet eecattgget aaacacagtt
                                                                       240
gatggccagt gcactgggga gctgttcttg gagcccacag gcatctgctt cttggcacag
                                                                       300
      <210> 1725
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1725
ggtgattggg ctggttctgt accgggtgta ctccgtgggg ggccgtgatc tggcaaagcc
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ttggaggtgg gactgtggag gcaccattga ttgaactgtg teecetgcag tteacatgtt
                                                                       120
gaggcccaaa cccccagtgt ggctgcattt ggagtagggc agtaattatg gttaaatgag
                                                                       180
gtcgtatggg cgggtgctga tccactagga ttaggatcct tataagaacc tgccaccttc
                                                                       240
tetetgecae gtgaggaeat gggtagaagg eggetgtete eeacceagga ggageeetta
                                                                       300
      <210> 1726
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1726
caaagctgtt ttataaatta gggagaagag tgaggagaga ggaataggat agacgaaggt
                                                                       60
agagagaggg agcagtggag aagaaaacct cagagtgagg caaaggaaga ggtgtgaagg
                                                                      120
ggaaaagaag tggcgatggc agggaagagc ccctggccat gagagagact ggggggagtg
                                                                      180
ggaaggaagg gaagttatgg ggcagggggc acagagcaga gaacaagaga gtaaggctag
                                                                      240
agagatgaaa gaaacagtga gactgagcta agaagagcga tctcacgctt aagagacaga
                                                                      300
      <210> 1727
      <211> 300
      <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> (1)...(300)
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\langle 223 \rangle n = A,T,C or G
      <400> 1727
cccctctcca cattgacctc tagagtggcc tgtccaactc ctaagtccaa ccttcccaca
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ccggacagaa agctttttac tggccccgtt gctcccgggt gaggcctaaa cacttgatga
                                                                        120
tgatgaagat gaagatgtga tgatggtagc catcacacag ctctcccatg taaccctcac
                                                                        180
                                                                        240
gacaaccctg caaggcaaat agcatcacca tccttatttg gcaaatgaaa agctgatggc
                                                                        300
tcaqaqaaqq taaatqactt qcccaanqng actgagccag tattgccaca nacaggctcc
      <210> 1728
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1728
ctccattgtg aagatccagg catttttccg agccaggaaa gcccaagatg actacaggat
                                                                         60
attagtgcat gcaccccacc ctcctctcag tgtggtacgc agatttgccc atctcttgaa
                                                                        120
tcaaagccag caagacttct ctgctgctgt gatctgcaca ccctccaacc tgggcaggga
                                                                        180
ctqqqqqqat qcaqtqtqtq ttaqtqccca tqtqqcattq tqgcactgtt gccccccatg
                                                                        240
gcggcatggg caagatgacc ttccattagc ttcaagtctt gttctcttgt ctgtggtctg
                                                                        300
      <210> 1729
      <211> 300
      <212> DNA
      <213> Homo sapiens
     <400> 1729
                                                                         60
gatetetttt gaggtgatgg tgetggeega getgtttetg gagatgetee agagggattt
tggctataga gtttataaga tgctactgag ccttcctgaa aaggtcgtgt ccccacctga
                                                                        120
acctgagaag gaggaggcgg ccaaggaaga agccaccaag gaggaagaag ccatcaaaga
                                                                        180
ggaggtggtc aaggagccca aggatgaggc acagaatgag ggcccggcta cagagtcaga
                                                                        240
ggccccgctg aaggaggatg ggcttttgcc caaaccactc tcttctgggg gagaggaaga
                                                                        300
      <210> 1730
      <211> 271
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (271)
      <223> n = A, T, C \text{ or } G
      <400> 1730
agacaatccc aaatatttgg agattgtctt aactggttta gtgtagctat aaaagaatac
                                                                         60
atgaagetgg ataatttatg aagaaaagag gtttatttgg eteacagtte tataggetat
                                                                        120
                                                                        180
acgagatgca tcatqccacc attttcctqq agcccttcag gaagcttcca ctcatggcag
aaggtgaagg geagecagea tgtteagtga teacgtggtg agagggaagg caagagagan
                                                                        240
                                                                        271
aanagggagg ggncacgctc tattnagtac c
      <210> 1731
      <211> 300
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<211> 300 <212> DNA <213> Homo sapiens

<400> 1731

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cagtteacag tattaccete agtgeaceag aatteettte tateeatata etcaceagea
                                                                         60
 cttgttactg aactctagtt tttgccaatt tgatgggtgt gaaatggcat cttattgtga
                                                                        120
 tttttaattt ttctcattac ttacaaagtt catcatgtct cctagccctt tgggtttcct
                                                                        180
 gttcaatgtc aatttcctat ttatgtattg gcccacataa aaaatattgc atagtctatt
                                                                        240
 ttaaaatgat ttataggggc tctttacata ttctgggtac taattattcc ttatgtgtga
                                                                        300
       <210> 1732
       <211> 295
       <212> DNA
       <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(295)
      <223> n = A, T, C or G
      <400> 1732
ctggacgcct ntaatgcgan aanngncccc ngtttaacag accngcaaat ccgggngcgg
                                                                        60
aacangaccc nngggtttcc tnttgntccc tngttngggg geggtggntg gggctgtncg
                                                                       120
gccaannang ganttgnttt ttttangntt taaaananga ttttaaaant cannnnnnng
                                                                       180
tttttttttt tttttaattc tgaaacagac ctgttttgta ccgagttatt
                                                                       240
tttgggataa attttactgg ttgctgttgt ggagaaggtg gcgtttccac ctttt
                                                                       295
      <210> 1733
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1733
atggggtata gatggttttc cccctgtgta ctctagtaaa tttctatgcc atttctccta
                                                                        60
togatotgcc ttttgtcagt tgatttttca gcttaacttc agagagcaaa ggggaaggtg
                                                                       120
gccaagtgca gtgtctcatg cctgtaatcc cagcactgtg ggaagctgag gcaggcagat
                                                                       180
cacttgaagt caggagttca agaccagcct ggccaacatg gtgaaaccct atctttacta
                                                                       240
taaagaaaaa taagtcgagt gtggtggtgc acacttgtaa tcccagctac tcaggaggct
                                                                       300
      <210> 1734
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1734
gggggtteec aatagtagaa agggteecca tteetgetea geacegeace tetetaceee
                                                                       60
cccacagaca cacatgcaga cacacacatg cagacaacac gcagacacac acatgcaggc
                                                                      120
actcacatge aggeecatge acacacacgt geacacacat geagagaeat geagaeaege
                                                                      180
aggeacaeat geacaeatge aaagaeaege atgeaggeae aegeagaege acaeagagae
                                                                      240
acacatgcag atacacatgc acacacata acacacatg geocetgttt ttetgtggtg
                                                                      300
      <210> 1735
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1735
gcttgatcgt ctgggcctgt gtttcagctg ggataggatt ctcaatcctt cttgttcaaa
                                                                       60
tccgaagtcc agaaagctct gaaaactgaa agttttttca taatttattt cactgtaaaa
                                                                      120
cctgaattga actgatattt atctcactaa aaatgattat tcatatattt tactgtaaga
                                                                      180
```

```
ataqtaaaat taccaaqtaa tatcccaqac ctaqttaqat aaatgcacta ttttctttta
                                                                     240
atttcaaaac aatcttaatt ctgaggcaca tttggctgac agcatttcag ataagggatt
                                                                     300
      <210> 1736
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1736
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                                                                      60
aagtcaggat aagtaaagca atgctgcagg aacaaacaat ccccaaattt cagcagctta
                                                                     120
ctacaaaaaa atatqtattt ctcactcatq ttcatqtcca atgtqtgtta gcaaggagat
                                                                     180
actgtctctc acagtcatgc aagacccctt gctggggaag ctgcacctcc atatatgctt
                                                                     240
ctaccatcac cagggcagag gagagggagc atggtggatc atacactggc tcttaagact
                                                                     300
      <210> 1737
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1737
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aaattaccca gteteggqca tqtctttatt agcaqtgtga gaatggacta atacaagtac
                                                                     120
cattaataaa tttcacaacg tagattaaat gtgcaaattc cttgaaagac acaaattaaa
                                                                     180
aaatgacctg agaagaaaag aaacttgaat agatctgtat ctattaaaga agttgaaatt
                                                                     240
ataattagaa accttttgaa cattagaact ccaggcccct tgttgtgaat tctatcgaac
                                                                    300
      <210> 1738
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1738
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gcctgtagtc ccagctatct gggaggctga ggtgggagga tcatctgagc ccagtagatt
gaggttgcaa tgaatcatga ttgtaccact atactccaac ctggacaaca gagcgagacc
                                                                    120
ctgtcgcaaa caaacaaaca aataaataac ctgggcaaca gagcgagatc ctgtctcaaa
                                                                    180
taaataaaca aacaaaagta gcagattagc tgggcgtggt gttgcatacc tatagtccca
                                                                    240
gctgcttggg aggctgaggc agaggatcac ttaaacccaa gaggatacag tgagccatgt
                                                                    300
      <210> 1739
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1739
gtttaagtet tgtagetgta tageatteea ttgtataaet tataatttat ttatgggttg
                                                                     60
tactattgat gaacatttga gtagtcttca gtttggaact accacatatg gtgctgttat
                                                                    120
gaatactttt gcacaggtat gtgaacacat gtacacattg cagttggtat atatacagta
                                                                    180
240
tattattgta tctttgaatt ttaaaccaaa ttaaaaattc tatgagttgt tgaatattat
                                                                    300
      <210> 1740
      <211> 300
      <212> DNA
      <213> Homo sapiens
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<400> 1740
taaatgttga aattaactag acaaagtagt tgaagtcctg atgaaaagat tgttcagttc
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                                                                     120
ttttagaaga aaacataggt gaaaacctac aagacaaaac ttggtgaaga gtttctccat
                                                                     180
gtgatgcaaa aacatgatcc atagaagaaa gaaatctgta aattggactt tatcataatt
                                                                     240
aaaaacattt gctttgcaaa atgccctgtt aagatgatga aaaaacaaac tacatactgg
                                                                     300
      <210> 1741
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1741
caaataggag atgggttttt tttcgggggg gagggaagga acagctttgc attaacaact
                                                                     60
actgagaatt atacatttaa agattatctt caatgtccaa taacccttat attcaatact
                                                                     120
gaatttattt ccacttctcg ccttcatttt tatttgttac gtattctcaa agttctctcc
                                                                     180
tagtagaaga atgaaccaga aatgaacata agcatgtcgg aattcacgta tgtggcagac
                                                                     240
tgtattttcc aaagatggcc acaacaatat ttctcattcc acatggtctg ctggaacctt
                                                                    300
      <210> 1742
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A,T,C or G
      <400> 1742
aattcacgag gtggaaatag gaaaagctag atgtgagcag ccgacttcac ctcgatcctt
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gactctcact attcacacca gttatgtggg gagccgtagc tcttccaata tggctattgt
                                                                    120
ggaagtgaag atgctatctg ggttcagtcc catggagggc accaatcagt tacttctcca
                                                                    180
gcaacccctg gtgaagaagg ttgaatttgg aactgacaca cttaacattt acttggatga
                                                                    240
getcattaag aacactcaga ettacacett caccatcage canagtgtge tggtcaccaa
                                                                    300
      <210> 1743
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1743
gaagagctga agagaggagg tggcaggact aactaaaagt gggacagtca cttgttatag
                                                                     60
tgaaggtaga atggacagaa ttgggcaact aattaagagg gagaaccctc taggagaaca
                                                                    120
ggagaacgca tccaaacctg gaaaaccagg aagagaagat ccttggtgag aagcagtcaa
                                                                    180
240
gcaaatgaat cacttgagac caggagttga ggagcagcct ggacaacata gcaagacccc
                                                                    300
     <210> 1744
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1744
caaaaagtta aaattttatt tttctctcat gtaacatttt ggataatttg atgattccct
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aatgttggga cccagtettt tetgtettag geteacaact ateettgage etgtgteatg
                                                                    120
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qqqqatqact ctgaagctgc gtgcaccctg ttcattcaca ttttcttggc ctgaacttag
                                                                    180
tcactaggct attcctaact gcaagagaag ctggaagatg tagtcttcct tctgaccagc
                                                                    240
                                                                    300
catqtgctca accacaatt gagtttcagt tattggaggg cagaaagaat agatatgggg
      <210> 1745
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1745
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aagteteact eteatttqtq ettteteeat eccattteec tteecetttt aggeaaceat
tttagctgac ttcttgttta tcttgccagt gctccttcat gcaaatatgg gcatatattc
                                                                    120
tttcttcccc cactttcttg cataaaaggt agtgtatcat gtatatactg ttctgcacct
                                                                    180
tgattttttt cacttgacat gtcttagaaa tctttcctta tcagtgttta tagaccatcc
                                                                    240
tcattctgtt gcatagcaaa ggtgattata ttcctgttac ctttggggtt atggcccatc
                                                                    300
     <210> 1746
     <211> 183
     <212> DNA
     <213> Homo sapiens
     <400> 1746
ctactgagec tggcttgcaa ctggggtgag ctccaccttg aacgtcgatc ctcctgcctg
                                                                     60
gtggagccat cccagctgat gccacatgaa gcagacacaa gctgtcccta ctaagctctg
                                                                    120
180
                                                                    183
aaa
     <210> 1747
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1747
gagaaacact cagggcctga accaaggaat taactgtgat tggagaggag aggcagcagc
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cacagaaggc acaaagaagg tggaatcacc caaacatttg tcagattgag gggtgagggg
                                                                    120
gcatgagaac tccaagatta cactcaggtt tctgtctttg gtgcctttaa aaattttaac
                                                                    180
                                                                    240
caaagttgag aatttactgt atgctgggga ctctataaga ggctttatct ttattatgtc
tgttaatcct tgcaacagcc ctgtgagagg tatttttgcc ctcatttgat ggatacctga
                                                                    300
     <210> 1748
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1748
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                                                                     60
                                                                    120
atgttaccat tatgggaaac tggaggaagg gcatatggga cttctttgta ctgctttttc
tattccctgt gagtttataa ttattttata ataaaagttc aaaaacactt attggatgga
                                                                    180
catcacagaa cataatagaa gaaagaatca gtgaattata ggtctgttta atagaaatga
                                                                    240
ctcaaactga cacacaaagc aaaaagaatg aagaaaacag aacacagtgt ctgagacttt
                                                                    300
     <210> 1749
     <211> 300
     <212> DNA
     <213> Homo sapiens
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<400> 1749
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tgcctccttt ggagaggctc atcagaaact caaaataatg caaccatttg actctcacct
                                                                    120
acctgtgacc tggaagatcc ctctctgctt gagttgtcct gcttttctgg atggaaccaa
                                                                    180
tgttcatctt acatatattg attgatgtct catgtctccc taaaatgtat aaaaccaagc
                                                                    240
tgtgccctga ccaccttggg cacatgtcgt caggacctcc tgaggctgtg ccacaggcat
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      <210> 1750
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1750
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cattacaaga aaagaaaatt acagaacaat attgttagtg aataaagaag caaaaatcct
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caacaaaaca ttaacaagtg aagtaaacaa tatataaaag gataatactg catgaccaag
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tgggtgtggt taataatttc aggaactcaa catcagttta acatttaaaa aaatcaacat
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300
      <210> 1751
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1751
ctagcaactg ttccagatga gcaggattgt gttactcaag aagtgccaga ctcccgccag
                                                                      60
gcagaaactg aagctgaagt gaaaaagaag aagaacaaga agaagaacaa aaaggtgaat
                                                                     120
ggtctgcctc ctgaaatagc tgctgttcct gagctggcaa aatactgggc ccagaggtac
                                                                     180
aggetettet ecegttttga tgatgggatt aagttggaca gagagggetg gttttcagtt
                                                                     240
acacccgaga agattgctga acacattgct ggccgtgtta gtcagtcctt caagtgtgac
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      <210> 1752
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1752
gttaaaagaa taaaaagaa taattgaagc cttcgagaca tatgggatac tataaagcca
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 ccacatattt gaatcatttg ggtcccagaa gacagagaac aaaaggattg gaaaactcat
                                                                     120
 ctattttttt gttattaaat aatagatgaa aacttcccaa atctatcaaa tgatttagat
                                                                     180
 atecagaaac aggaggetee aagateegea aacatataca atgeaagaaa gtetteteet
                                                                     240
 tggcacatta tagtcaaact atctaaagtc aaagacagaa ttctgaaaaa ggcaagagaa
                                                                     300
       <210> 1753
       <211> 295
       <212> DNA
       <213> Homo sapiens
       <400> 1753
 geeteaggag gageteaaag aggageagae ageeatggtt eeteeageea teeetetteg
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 gegetgeaga tactgeetgg tgetgeagee cetgaggget eggeactgee gtgagtgeeg
                                                                      120
 ccgttgcgtc cgccgctacg accaccactg cccctggatg gagaactgtg tgggagagcg
                                                                      180
 caaccaccca ctetttgtgg tetacetgge getgcagetg gtggtgette tgtggggeet
                                                                      240
 gtacctggca tggtcaggcc tccggttctt ccagccctgg ggtctgtggt tgtgg
                                                                      295
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<210> 1754

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<211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1754
gaagagaact atctaaatga gtaatggtca agaaatttta aagcataatg acatgaaaca
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aacaaccggt ccaggaagct cagagaatac aattcatgac aaacaacaaa aatacagcac
                                                                       120
cagacatage atttectata tgtagaataa aagaaaataa aataaateaa taaatagaca
                                                                       180
aagagaaaat cttgacagaa tctggaatga aaactacatt ccttgtagag aaaaaagagc
                                                                       240
aaggatttca gcccacttcc agtaagaaac caggcaagaa agaagagagt tgcgggaaat
                                                                       300
      <210> 1755
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1755
aataattatg ctgaatgaaa gaagccagac agcaaaaatt tcctactgag tgattccatt
                                                                        60
tatataaaaa totagagaat gocaattago otttagtgaa ataaagoaga acagtaattg
                                                                       120
cctgtgacag ggtgggaaag atttggactg gaagcaggga ttaccaagag gggtgagaaa
                                                                       180
acttttgaag gtgatgaata tgtacattgt cttcattgct ttgatggttt tacaggtgta
                                                                       240
tatgtaattc aaaatgatca aattatacac tttaaatatg ttcagtttat tttatagaat
                                                                       300
      <210> 1756
      <211> 294
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(294)
      <223> n = A, T, C or G
      <400> 1756
atatgctqaq qtcctqqcct ccaqtacctc agaatgtgac tgtatttgga gatggagata
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cagocttcaa agaggtgagt aagttaaact gaggttgtta agatgggccc gcaaccaatc
                                                                       120
tcaccggcat ccttagaaga aaaggagttg gagacacaga gagagaggct agacacaggc
                                                                       180
acacgtgaag ggacggtcag gggaagcggc agcgagaggg tgctgtctac agccacagag
                                                                       240
aggecectga ngagaceaac getgeeggna ecatgataet ggaetgantt aceg
                                                                       294
      <210> 1757
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1757
tgattctgga acagagtgca caccaggaga atctaagaat ttgggtcaaa aagaaaatgg
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caattacatc atattctcta ctatattttc ctgtgtattc aaaagtatct ttttgaaaat
                                                                       120
ggaagggtag atgacatttt ctccgatctt tattatgttc ggttcacgga gtggctacat
                                                                       180
gaagttetga aggatgttea geceegggte acteeacttg getatgtett geceagecae
                                                                       240
gtgactgagg agatgctatg ggagtgcaag cagcttgggg ctcactcccc ctccaccttg
                                                                       300
      <210> 1758
     <211> 300
     <212> DNA
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<213> Homo sapiens

```
<400> 1758
                                                                        60
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caggagttcc tggagaagaa aatcgagcag gagctgacgg ccgccaagaa gcacggcacc
                                                                       120
                                                                       180
aaaaacaagc gcgcggccct ccaggcactg aagcgtaaga agaggtatga gaagcagctg
                                                                       240
gcgcagatcg acggcacatt atcaaccatc gagttccagc gggaggccct ggagaatgcc
                                                                       300
aacaccaaca ccgaggtgct caagaacatg ggctatgccg ccaaggccat gaaggcggcc
      <210> 1759
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1759
cccatgtccc gcccgctcgt ctgcctggct gcggggtgac acggggcttc gccttgggaa
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ggggtcgagg gaagcagtta gacggctgcc gggcggcggc tgccgcgcgg cacacaatat
                                                                       120
                                                                       180
ttatttaatt gcccaactac cactgatgaa gatatattgg agtgactgct gaaattgcct
ttttgttttt aaccagagga cagtccattt gtttcacttc tttttgcttt ctttactgct
                                                                       240
atgagettta etgaaegget gaaaaaettg gaaaataaaa tggaeatget gtagtettga
                                                                       300
      <210> 1760
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1760
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atcagtatga actcttaaaa catgcagaag caactctagg aagtgggaat ctgagacaag
ctgttatgtt gcctgaggga gaggatctca atgaatggat tgctgtgaac actgtggatt
                                                                       120
                                                                       180
totttaacca gatcaacatg ttatatggaa ctattacaga attotgcact gaagcaagct
gtccagtcat gtctgcaggt ccgagatatg aatatcactg ggcagatggt actaatatta
                                                                       240
                                                                       300
aaaagccaat caaatgttct gcaccaaaat acattgacta tttgatgact tgggttcaag
      <210> 1761
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1761
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ctaaggaaag ggcctagggc caaggcaggc taaatgccac tcgggtcttt gttattgggc
ttttattatt ctgttggtct gttccaccac cccagtggat gttaataggc caaattttgt
                                                                       120
aaacattttg aataatttgc cctgtaaaat gagttcctta gtcactgtga agctcttgag
                                                                       180
agacttccca ggttgatata atttttccag taaggtttaa ctactgccat tgctgtgacc
                                                                        240
 tatcaagaag aaggtgttaa cccagtttga aaacatgcaa atcataatta gtacgtgctg
                                                                        300
      <210> 1762
       <211> 300
       <212> DNA
       <213> Homo sapiens
       <400> 1762
 ggaagtacaa attaagatca cagtgagata ccattatcca cttgtcacaa tggctaaaat
                                                                         60
 aaacaatagt ggcaatacca agtcctgtga aggatgtgga gaaatggatc acttatacac
                                                                        120
 tgctggtggg catgtaaaat ggtacaacca gtctgaaaag cagtttggca gtttcttata
                                                                        180
 aaagtaaaca tgtaattata tgctgtggtc tgaatgtcct ccaaaaattt atatgttgac
                                                                        240
                                                                        300
 acccaaaccc tcaaggtgat ggttttagga gggtaggccc tttgggagat tagtttctga
```

<210> 1763

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<211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1763
qctcaaacaa tctqcccacc tcqtcctccc aaqatqctgg gattacagtc atgagccact
                                                                     60
gcagccagcc tacattttta aatggttgga aaatcaaaag attatttgat gacatgtgaa
                                                                    120
aatggtataa aactgtgaaa tctattgtcc ataagtaaag ttttctttga acacatccat
                                                                    180
gctcactcgt taacttattt tecatggctg etttcatgct gcaatcttgt cectgeeett
                                                                    240
aaaqaqctaa qqqtctaqta qaqaqqcaqt aatqqtqtqa gataatggct aaatggaagc
                                                                    300
      <210> 1764
      <211> 94
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(94)
     <223> n = A,T,C or G
     <400> 1764
cccctccaqc ccccaaacat agcttcaaaa ccttccttgc tatttgttct tnggnngggg
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ggnnttttta ataatcgctn ncncgncccc nnac
                                                                     94
     <210> 1765
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1765
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catgtatacg ctcagatggc cagaagtaac tgaagaatca caaaagaagt gaaaaggccc
                                                                    120
tgccccgcct taactgatga cattccacca ttgtgatttg ttcctgcccc accttaactg
                                                                    180
agtgattaac cetgtgaatt acetteteet ggeteaaaag etececeaet gageacettg
                                                                    240
tgacccccgc ccctgcccac cagagaacaa cccctttga ctaattttcc attaccttcc
                                                                    300
     <210> 1766
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1766
gacatacgag aagaaattaa atgtgacttc gaatttaaag caaaacaccg aattgctcat
                                                                     60
aaaccgcatt ccaaaccaaa aacttcagat atttttgaag cagatattgc aaatgatgtg
                                                                    120
aaatccaagg atttgctagc tgataaagaa ctgtgggctc gacttgaaga actagagaga
                                                                    180
caggaagaat tgctgggtga acttgatagt aagcctgata ctgtgattgc aaatggagaa
                                                                    240
gatacgacat cttctgaaga ggaaaaggaa gatcgtaaca caaatgtgaa tgcgatgcat
                                                                    300
     <210> 1767
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1767
gagaactcca aatagcccaa gagggtggtg cacccccaac ttcataaggg tagaggctcc
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tgagattagg agaacccttt ttaggcttta ctctatgtac ctcttcattt gagtgttcat ttgcgtcctt tataaccagt aaaacaaagt acgctgtttt cttgagtttt gtgagccctg tagcaaatta tcaaacctga gtagggcagt gggaactcgg aatttatcac cattcagaac tgcaggttgt ccttgtgagt ggcatctgat gtgggggaag tcttggactg agccccttaa	120 180 240 300
<210> 1768 <211> 300 <212> DNA <213> Homo sapiens	
<400> 1768	
ccggcggctc tggctgcccg gcggttgaga gcatggcctc tccaggggca ggtagggcgc	60
ctccggagtt accggagcgg aactgcgggt accgcgaagt cgagtactgg gatcagcgct	120 180
accaaggcgc agccgattct gccccctacg attggttcgg ggacttctcc tccttccgtg ccctcctaga gccggagctg cggcccgagg accgtatcct tgtgctaggt tgcgggaaca	240
gtgccctgag ctacgagctg ttcctcggag gcttccctaa tgtgaccagt gtggactact	300
<210> 1769	
<211> 300	
<212> DNA	
<213> Homo sapiens	
<400> 1769	
agagaactag totogagttt ttgacagata atagccacco taggaggtgt gaagtggtat	60 120
ctcattgtgg ttttccattt ttctgatgac tgagaatgtt gagcatcttt ccctgcgtgt tgtccatttg tgtatcttct ttagagaaat atctgcttac gtcctttgcc cagttttaat	180
tggattgtct ttctgttgct gagttgtcgg aattggttgt acatcctcca tactgagtcc	240
tcatcagata cotgatttgo gaatatttto ttocatacca tgagttatot tttoacttto	300
<210> 1770	
<211> 300	
<212> DNA	
<213> Homo sapiens	
<400> 1770	60
ctagaattet gttaetgtea aaaaegtttt caaaaatgaa ggeaaaataa agaetgttte tgagaaaeta aateaaaggt aattttatta eetgtagaee tgtetttggg aaaeattaaa	120
ggatgtttga gggcagcagg aaaataatac aaaacttaag tttgggtctg tacaaagaaa	180
atcagetttt etaagateaa gecagagttg ettetettae aacettaegg egetaatgea	240
ttaagttgaa gtcgactgcc aaagaggccc agcagagggc agcaccccca tcatttttt	300
<210> 1771	
<211> 300	
<212> DNA	
<213> Homo sapiens	
<400> 1771	
gcatagagae catcatggea tgctccccgt gtgaaggeet ctactttttt gagtttgtga	60 120
gctgcagtgc gtttgtggtg actggcgtct tgctgattat gttcagtctc aacctgcaca tgaggatccc ccagatcaac tggaatctga cagatttggt caacactgga ctcagcgctt	180
toottttott tattgottoa atogtactgg otgotttaaa coatagagoo ggagoagaaa	240
ttgctgccgt gatatttggc ttcttggcga ctgcggcata tgcagtgaac acattcctgg	300
<210> 1772	
<211> 300	
<212> DNA	

<213> Homo sapiens

```
<400> 1772
gtttagggtc agatccatgt atttgtagct tggaggtgag cccaggggtt catacacaac
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tttgctccct actgtctgtg atccctctgc cactttctgg ttccttggag ctccctttca
                                                                        120
tgatcctcct gtcagaatac cagggcttta atttgcccac tctctgccat gcacttctca
                                                                        180
tgactgcatc tgcatccagg gccaagcggt aggaggacag agggagccta aataaacaat
                                                                        240
aggatttgtt tcacagtctt gaagctacag cttctctggt cagagaaaag aattcaaagc
                                                                        300
      <210> 1773
      <211> 288
      <212> DNA
      <213> Homo sapiens
      <400> 1773
taattatagt ccctggagtt atgcagctaa ttaaaggtca aacgcagaac tttaaagacg
                                                                        60
ccttttcagg aagagattca agtattacgc ggttgccact ggctttttat tatggaatgt
                                                                       120
atgcatatgc tggctggttt tacctcaact ttgttactga agaagtagaa aaccctgaaa
                                                                       180
aaaccattcc ccttgcaata tgtatatcca tggccattgt caccattggc tatgtgctga
                                                                       240
caaatgtggc ctactttacg accattaatg ctgaggagct gctgcttt
                                                                       288
      <210> 1774
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1774
caacaaacta ggaatagagg aaactatctc aacataatag aagttatata ttaacaaccc
                                                                        60
acagcagacg tcacattcaa tggtaaaata ccaaatgctc ttcctctaag atccaggaac
                                                                       120
attacaagga tgcctaactt tgccacttat attcaacata gtactggaag tcctaaacgg
                                                                       180
agcaattagg caagaaaaag aaataaaagg catccaaatt ggaaaggaag aggtaaaatt
                                                                       240
atctctgtag ctgatgatgt gatcttattt taaatgctgt gatcctaagg ataccaccaa
                                                                       300
      <210> 1775
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1775
etectgeeet eeetggggtg gttetgtett ttgeaaaggt ggetgeatee ttaggggaag
                                                                        60
gtgaggggag aagcagggag catggagaga agtggctttc gattttctct ctccttttgg
                                                                       120
ggagttecte ettatgtgge tggtetggtg catagtgtga tgtattectg taegcaacgt
                                                                       180
tgccctgaca gccagtccaa gctgagtcta gagctggcaa ggtgagctcc cagtagtaag
                                                                       240
agggtgtggg cggcaagcca cccaggcacc gaggcaagag acagaggaca cgagctgttc
                                                                       300
      <210> 1776
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1776
cttgagagaa tagatctaga tgggtggggc acggttctgg ggaatggaag ggccaaagag
                                                                       60
gaaagtgggc aatggtgggg ttgagaacgc agcttctgga ctcagcaggc ctgggttcaa
                                                                       120
actctgttaa tcactcctgt taatcccagc gctttgggaa gccaaggagg gaggatcact
                                                                       180
tgaggccagg agttcaagac cagcctgggc aacataatga gattccatct ctacaaaaaa
                                                                      240
taaaaaacaat tagccaggtg tggtggtgca cacctgtagt tccaggtact tggaaggctg
                                                                      300
```

```
<210> 1777
     <211> 107
     <212> DNA
      <213> Homo sapiens
      <220>
     <221> misc feature
      <222> (1)...(107)
      <223> n = A, T, C or G
      <400> 1777
actttaaacc ctacctgtgt gattcagtag ggtttgagaa ttacgtgtga tactgggggg
                                                                        60
                                                                       107
nntqqqnqnn ttnntnqnna gnnngggggn nttnntcntt ntttttg
      <210> 1778
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1778
catttcttgt ctttattaat ttgacttctc tagggacctc atttaaatga aatcatacag
                                                                        60
aatttgaact tttgtatctg gataaaaaat atatacagca ttttgctgac tgtaaaatgt
                                                                       120
atttttttgg geegggtaeg gtggeteatg eetgtaatee eageaetttg gtaggetgag
                                                                       180
geaggtggat cacctgaggt cgggagtttg agaccagcct gaccaacatg gagaaacccc
                                                                       240
gtctctacta aaaataaaaa attagccagg cgtggtggca catgcctgta atcccagata
                                                                       300
      <210> 1779
      <211> 298
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(298)
      <223> n = A,T,C or G
      <400> 1779
tttgggnatn tgnggggttt ttnntttttn ttttnccngg tcngttanaa aaaaaaaaaa
                                                                        60
agecatgeta teaateaaga ttetttttt ttaaaettte teecatgaae taecaecate
                                                                       120
agtatgaatt gatgcaacaa atgaagaaat atttaaagac agcctctcaa cagattgtat
                                                                       180
ctcaggttaa atgctaacta attatgtctg tgttgggggt tgcaaagaga ttcttaaaag
                                                                       240
tatctgtgtg ttgatcatca gttttacaaa aacacctatt tggctgaaag gaataaaa
                                                                       298
      <210> 1780
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1780
gatctactgc cttagcaaat gtcatatata tgattacaag attattaact atagtcacca
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tgctgtacct tggaaaagaa aacctacttt tcttgcttaa gtaaaacttt tacccttttc
                                                                       120
aaggactggg ggaccttgag tatgtgcaga ttttggtaca cgcagggggt cctagcacca
                                                                       180
atctcctgcg tgtaccaagg gatgaccgtg tgtataggaa atcacatgtt tattacccat
                                                                       240
gtatttgttg ttggatgctt agtctgtttc catatctttc tattgtaaat agtgccgcag
                                                                       300
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<210> 1781

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<211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1781
gaatggagtt ccacctqqqc tqttttatta actatttqcc cctccqtttc ttcatctqqa
                                                                        60
aaacagaaat gataacctta ctattaattg tgtgaccttg gacaagttac aacatctccc
                                                                       120
tgggcgcgat tgtcccatct gaaggtcata atagcacctg ccacagagga tggtagtaag
                                                                       180
gattaaatta gttaatccat gtaaattacc taggtaagtg cctgccatat agcaagtgct.
                                                                       240
tggtactttt ttttaaaaat cactgttatg actattgcag acacctttgc catgattgga
                                                                       300
      <210> 1782
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1782
gggggaaaat gacagaggaa aaagagaaaa tggagcagaa aaaaatagta gaagaaataa
                                                                        60
tagctaaaaa atttcagaat tcagtgacaa gtagaaattt acagatataa gatcatatgc
                                                                       120
tcaagaaaca ccaataagaa taaatattta aaaatcccac gctggttctt gcaaactttt
                                                                       180
gaaaaccaaa gttgaagagc aaatcttgaa agcaacaaga gaaaagccat acaqtaataa
                                                                       240
tecagttaat ggetgaette teaetggaaa eettgeagae eagaaeggea tggaataaca
                                                                       300
      <210> 1783
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1783
ggtggatgee atetttgget teagetteaa gggegatgtt egggaacegt tecacageat
                                                                        60
cetgagtgte etgaagggae teaetgtgee cattgeeage ategacatte ceteaggtge
                                                                       120
tgggatccag aaggtggggt gggagagatt ggggccctac cctcctgact cttgcccaca
                                                                       180
ccaggtctaa aataatttta gtctagaggg gcagaacaca gctttctgga cccccatcag
                                                                       240
ggctggggaa cagtgttcaq aaqtcccctt tacatgttqq ccccatgaag aqaccacqqc
                                                                       300
      <210> 1784
      <211> 299
      <212> DNA
      <213> Homo sapiens
      <400> 1784
gacctcctga gggctgtgtc atgcgccatg atcagtcata tttggctcag aataaagctc
                                                                        60
ttcaaatatt ttagagttca actcttttca ctgacaatag taatgagatt ttaaaagatt
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tttttaaaaa aggaactcaa toottaaaag tcagcttaat taaaagctaa catccaagat
                                                                       180
gtgtgtgtgt gtgtgtgtat gtgtgcatgt gtgtgcatgt gtgcatgtgt gtatttaaaa
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      <400> 1785
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gctgggaagg tctcaggaaa cttataatca tggcagaagg tgaagggqaa qcaaqqcacc
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ttottcacaa gqtqqcagga aggagaatga acgcaggagg aactaccaaa cacttataaa
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240
accatcaqat cttqtqaqaa ctcactatca cgagaacagc atgggggaaa tcacccccat
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gattcagttt cctctacctg gtctctcttt caacatgtgg ggattatggg gattataatc
      <210> 1786
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1786
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agaagatgga aaagagaaag gagaagatga aaaagaggaa gaagacagaa aagaaacagg
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                                                                        240
agatggaaaa gagaatgaag atggaaaaga gaagggagat aaataagagg ggaaagatgt
                                                                        300
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      <211> 175
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
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      \langle 223 \rangle n = A,T,C or G
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caactcaggt gccaaaggag ctttttttt tttttgnaaa ggnatttnn nttng
                                                                        175
      <210> 1788
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      <212> DNA
       <213> Homo sapiens
       <400> 1788
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accaggtaca gaaactctgc agagtactca tgagtggcag gaggagctgt accacaagaa
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ggaagggctc agggaagggg acatgtctta ctcacttgtt agcttccacg gatgggatgt
                                                                        180
ggcagtgctc atgaaaggat cttggacaag tgtcgcagca gaacagccgt ccccatttgt
                                                                        240
                                                                        300
tgcacacctc acatatattt gagttttccg gctagaaggg gagatgtaga catcaccggg
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       <211> 300
       <212> DNA
       <213> Homo sapiens
       <220>
       <221> misc feature
       <222> (1) ... (300)
       <223> n = A, T, C \text{ or } G
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                                                                         120
 nacnccattn tectgeetea aceteeegag tagetgggae taeaggegee tgeeactgtg
                                                                         180
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cccnnctaat tttttgnatt tttannanac acanggttnc accatattag ccagganggt
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enegatntee tgaeettgat nnengeeegn etegaeetne caaagtgetg ggattacagg
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      <211> 300
      <212> DNA
      <213> Homo sapiens
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tctaaaaagc cctcagtacc agagacagaa gcagatggat tcgtcctttt agaagcatct
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cagaggetet ccagtgacgt getgttaaaa gtgetgacee tgggteagae eetttgggtt
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1791
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                                                                       120
gcactctatc agccagaatt tggcatttag ctcttagtta aatctagtaa aggacagtct
                                                                       180
attqtttaaa qaqaaqqtqc atttqttcct caatcaagca agagcacctg tgttgtactg
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      <212> DNA
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      <400> 1792
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gacacgaget ctatgeettt eeggetgete atceegeteg geeteetgtg tgegetgetg
                                                                       120
cctcagcacc atggtgcgcc aggtcccgac ggctccgcgc cagatcccgc ccactacagg
                                                                       180
gagegagtea aggeeatgtt etaceaegee taegacaget acetggagaa tgeettteee
                                                                       240
ttcgatgagc tgcgacctct cacctgtgac gggcacgaca cctggggcag tttttctctg
                                                                       300
      <210> 1793
      <211> 296
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(296)
      <223> n = A, T, C or G
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                                                                       120
ctcagccatg gcagtgggtc acaggtgtag cagtacaatg ccttccttgg ctatggcggt
                                                                       180
gggtcacgga cgcagctgaa tottgaacac acctgnnoot ctgcctccac ctgactccgc
                                                                       240
ggcggcaagg aatgaacaca qttntctttt taaccaaaat tttagatcat gatctt
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      <211> 300
      <212> DNA
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      <400> 1794
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cttaactgat gacattccac cattgtgatt tgttcctgcc ccaccttaac tgagtgatta
                                                                       180
accetgtgaa ttteettete etggeteaga ageteeceea etgageaeet tgtgaeeeee
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      <210> 1795
      <211> 289
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (289)
      <223> n = A, T, C or G
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                                                                       120
cagaatnaaa tootggonca aaaaaaaaa gtagocaggo atggtggogg gagoctgttg
                                                                       180
teccagetgt tecgtagget gaggeaegag atteaettga acetgggagg tggaggttge
                                                                       240
                                                                       289.
tgtgagctga caccacgcca ctgcactcca gcctgggtga cagtgagac
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1796
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                                                                       120
gggtgggccc taatccagca tgactgatgt ccttaaaagg gggactttgg agagaaaaac
                                                                       180
atgctcaagg aagaggatgt gaaggctacg tgaagagact ggagtgatgt gtctgctagc
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taaagaacac caaaaatcgt cagccaccac ctgaagctgg aagaggaaag gaaagatctt
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      <211> 300
      <212> DNA
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tatctatatt tacacagatc acatgaaagg agtcaactct gggaagtctc cgggctttgg
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gttgtcactg gttgctgaga ccaccagtgg caccttcctc agtgctgaac tggcctccaa
                                                                        240
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      <210> 1798
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<212> DNA

<213> Homo sapiens

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                                                                        120
gettttgtca gattttcaag geettaacaa agttaaagga ceaetgeeet gaggttaetg
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cactgaggec aagttaggat ggcatcactc tgtggcaget ctecctggac ttgccctgcc
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tggaacaggg tgatttgctg gaatggagtt accactgaga tgccaaaggt tgctgggtct
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      <211> 300
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      <213> Homo sapiens
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tagaaaagga aaagaaggcg caggaagcag aagcgcagag cgaggacgac gacgaggata
                                                                       120
cagaagagga acagggggaa gaaaaggaaa agggagcgca ggagaaaagg agggggaaga
                                                                       180
gagtccgttt tgcagaagat gaagaaaaga gtgaaaattc ctcggaggac ggtgacataa
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cggataagag tetttgtgga agtggtgaaa agtacatece aceteatgtg aggeaagetg
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1800
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atteteagtt ceaaaatetq tqacacetaq etqaqtetqq tetgatgett getttgtttt
                                                                       120
ttctcttgcc ttaaaacata gtatgccatg tgatttttgt gtagaaatag gtgcattatt
                                                                       180
tatcaggtaa gaggaactga gataagtaag cagaggtttt gtgttaatct ggctaggagt
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      <210> 1801
      <211> 284
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
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                                                                       120
actinning gneenineat glanacagtg aaatgactgn anachtggtg accegnngat
                                                                       180
accggnetne enaggneatn atgaatngna tgenetaenn geanaeggng gacatnnggt
                                                                       240
ctgtgggntg tatnatggcg nanatganca caggnaanac gctg
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      <210> 1802
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1802
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ctaacaagac tactacagga ttccctcggg ggtaatagcc aaacaatcat gatagcate	_
gtcagccctt cagacagaga ctttatggaa acgttaaaca ccctgaaata cgccaatc	•
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tataccgtta gaaagaacat tcctttgggg tgtggcctag gaagttttcc agattttt	
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3	- 5 500
<210> 1807	
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<211> 300

<212> DNA <213> Homo sapiens <400> 1807 caaggatggc tcaacataca caaatcaata aatgtggtac atcacattca cagaatcaaa 60 aagaaaaacc acatgattat ttgaatagat gctgaaaaag catttgataa aattcaacat 120 ccgtttatga taaaaaccct catcaaagtg ggtatagaag gaacatacct ctagataata 180 aaggccatat atgacagact tacagctaac attgtactga gtggggaaaa attaaaggta 240 ttgtagggag accccatgaa actattgcta tggaataaaa gatgaaatgc tcctgattat 300 <210> 1808 <211> 300 <212> DNA <213> Homo sapiens <400> 1808 tttttttttc gtaaagacag cgtcttgata ggttgcccag gctgctctgg gactcttggc 60 ctcaagcaat cttcctacct ccacctccc agttgttgcg ccatggtgcc tagccaagat 120 gagactetca tteaaacagt caaaaaceeg aettaaagta geteagacae acatagaatg 180 gattggctgc tgttgtggac tctccgaggg tggctccatc tgcaggcact gttggaacca 240 gtacccaagg atgatgtccc agcatctgtc tctccgggat ctcacctttg taccctgccc 300 <210> 1809 <211> 300 <212> DNA <213> Homo sapiens <400> 1809 etgagactca gtttttcttg gttcagggtc gtatttgaac agctctgttg tgaggaaggg 60 cttacaaaat tgcaatataa ttgctttgtt ttgtttttcc tttttgtgga gaacggggtc 120 tegeogtatt geceaggagt tegagaecag egtggaeaac ataggtagae eeegteteaa 180 caaaattttt tttaaaaagt agccaggcat gatggtgcac ctctgtagtc ctagctgctt 240 gaaaggctga gtctggagga tcacttggac ggacccacga gtttgaagct acagtgagct 300 <210> 1810 <211> 300 <212> DNA <213> Homo sapiens <400> 1810 actcaaagac acgtacatgt tgtccagcac cgtctcctcc aaaatcttgc gggccattgc 60 cttaaaggaa ggttttcatt ttgaggaaac attaactggc tttaagtgga tgggaaacag 120 agccaaacag ctaatagacc aggggaaaac tgttttattt gcatttgaag aagctattgg 180 atacatgtgc tgcccttttg ttctggacaa agatggagtc agtgccgctg tcataagtgc 240 agagttggct agcttcctag caaccaagaa tttgtctttg tctcagcaac taaaggccat 300 <210> 1811 <211> 300 <212> DNA <213> Homo sapiens <400> 1811 gaacagaact aataggatag atgtatatat atgaaaggga gttcattaag gagaattgac 60 tcacacgatc acgaggtgaa gtcccacgat aggccatctg caagctgagg agcaaggaag 120 ccagtagtgg ctcagtttga gtcccacaac ctcaaaagta gggaagcaga cagtacaacc 180 ttcaatctgt ggctgaaggc ctgagagccc ttggtaaacc actggtgtaa gtccaagagt

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      <400> 1812
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aatccccagt ttagcctgag accacctaac ttccccctac tcaggattca agccagttct
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      <400> 1813
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ctcagaacag cctaagttgg aggaattact aaactcatca tgacatgagg agctttcaga
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aaaccaacge caagateeet eccagegtee acategteet etggeaggag eteetgeeee
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                                                                        300
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      <212> DNA
      <213> Homo sapiens
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      <221> misc_feature
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canginatni natigiaago ncaaintgag tigigococa atgotogita ncagotgotg
                                                                        180
naacatanne ntggeetaet atanatnttg atteatgttt gaettnttte ntettatnnt
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tentttnagt atgttnnntn catattntat annattannt tntnnageta tatatgatee
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      <210> 1815
       <211> 181
       <212> DNA
       <213> Homo sapiens
       <400> 1815
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       <210> 1816
       <211> 300
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<212> DNA <213> Homo sapiens <400> 1816 gctcttttca agttcaagat aaagagaaat ttttcctcaa tcttgctaaa tgacagctac 60 tgccattcaa tggagatgtg gctaacatgt cccctgcatt acctctactg tatatgtaat 120 cactteetat taaegtatta ateteeteea ataaaaaetg cageetetta aggtettgga 180 ctgctctatt tcatgattgg ttagtagagc atttctttcc tataatccac actggcccct 240 ctctgtgaag aatgccctgt atgcaataat ctgactgata tcacagcttt acattattct 300 <210> 1817 <211> 300 <212> DNA <213> Homo sapiens <400> 1817 gttccctgct ctgatcattc acattctgtg attacacagg ctgtcatttc cacagagagc 60 catgaaacag tgaggagcca ttaggacatt cccatgggtg tagctcacag ttacaaagca 120 caactacacc ctggttctcc aggcctcctc tttcctggca ccgcagacca gatggggtcc 180 tggagagget etgegtgeee ttetggaget teccateact cetttetgea gatgtteate 240 ttaacagccc ctctgtgcca ctcagcccag tacccggctg cccggctgac tggagatggc 300 <210> 1818 <211> 300 <212> DNA <213> Homo sapiens <400> 1818 60 qqqqcccca cqcaaactca aattccctga gcctcaagag gtggaggaag agttgaagaa gtacctgtcg tagggagatt tgggtagaag ccctcatgct gagctttgtg tccctggtga 120 tgttggaaca ttaatgatgg aacatggcca aacttcagtc atgatcctga aaccatggct 180 tcaggatcat gactgaagtc atggtttctt ccctgccaga aatgaaggtt cagttatgag 240 gcaaccctct agtaaggcat tgtaaaagtt actggatttg gtttaataaa agttgaaata 300 <210> 1819 <211> 300 <212> DNA <213> Homo sapiens <400> 1819 qatcacttqa qcccaqqaqt ttaaqtctqt attactggaa aggggtccca atccagatcc 60 caaacaaggg ttcttagatc tcacacaaga aataattcag ggagcgtcta taaagtgaaa 120 gtaagtttac taagaaagta gaagaataaa aaatggctac tccacaggca gagcagctcc 180 ttggggetge tggttgeeca tttttatggt tatttettga ttatgtgetg aagaaggggt 240 gggttattca tacctcccct ttttagatca ttatagggta acttcctggc attgccatgg 300 <210> 1820 <211> 300 <212> DNA <213> Homo sapiens <400> 1820 attatggtgg aaggggaagc aaatgcccta cttcacatgg tggcaggaag gagaagaatg 60 agaaccaaat gagggagaag ccccttataa aaccatcaga tcttgtgaga acttactatc 120 atgagaatag catgggggaa actgccctgt gattcaatta cttcccacta ggtcactccc 180 accatacatg gagattatag gaactacaat ttaggatgag atttgggtgg gaacacagcc

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      <213> Homo sapiens
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tggacttggc acttaggtga tgtaactcac ctttattgcc agggcatggt atattatgag
                                                                       180
tattgtgaca aatctcttgg cctgacacct aggggatgag agactcctgc ctgggccctg
                                                                       240
cccacaggat gctttgtggc ctgtcttctg gttttattac ctagaaagat gtgactttcc
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caggaggtet aggetgeagt ttttattgte tttaaattet etteagataa tttaeceeeg
                                                                       120
cattgcctac acagcacact gcagagtgct gggcaacttg gtaattaacc ctctaattgt
                                                                       180
gtaaactgga agcttcgtga ggttatggct tcattaccat ggctacgtgg ctgtagccat
                                                                       240
gagtgtgcac tccagtgtgg gtgatggagt gagactctgt ctcaaaaagg aagggaggga
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ggagattgac cgcgcccggg ccatctacag cttctgctcc cagatctgtg acccccggac
gaccggcgcg ttctggcaga cgtggaagga ctttgaggtc cggcatggca atgaggacac
                                                                       180
                                                                       240
catcaaggaa atgctgcgta tccggcgcag cgtgcaggcc acgtacaaca cgcaggtcaa
cttcatggcc tcgcagatgc tcaaggtctc gggcagtgcc acgggcaccg tgtctgacct
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      <400> 1824
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atgcccaaaa gaaaggctgc aggtcaaggt gatatgaggc aggagccaaa gagaagatct
gccaggttgt ctgctatgct tgtgccagtt acaccagaag tgaagcctaa aagaacatca
                                                                       180
agttcaagga aaatgaagac aaaaagtgat atgatggaag aaaacataga tacaagtgcc
                                                                       240
caagcagttg ctgaaaccaa gcaagaagca gttgttgaag aagactacaa tgaaaatgct
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      <211> 300
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      <213> Homo sapiens
      <400> 1825
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ctgtgagetg cetactgetg cettetgaat geatatatet getactgtag ce teaaactatg geetgtggge caaatecage cacagteggt tetttaaagt tt cacaageaat ggaaatgeee attteeattg ttgteteeag ttgetetget ce	tatcgaaa 240
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cctttgacaa gtccatcaag ctgtgggatg gcaggacggg caagtacctg gc gcggccacgt ggctgccgtg taccagattg cgtggtcagc tgacagtcgg ct	
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gntcnctagn cnnagantct ttctttangg attctnta
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      <210> 1831
      <211> 300
      <212> DNA
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      <400> 1831
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aagacagtag aactgaaaaa gaaagtaggt caatctagaa ttctataccc aacacaaata
                                                                       120
tccttcaaaa atgaaggtga aataaacact ttttgatgga caaactgaag ttgagaqaat
                                                                       180
tcgtaaccag cagacctgta gtacaaaaaa tgttgaggca agttttttag gcagaaqaaa
                                                                       240
aatgatacta gatagaaatt tgggctgcac aaaggagtga agaggcttcc aaatggtaaa
                                                                       300
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      <211> 283
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (283)
      <223> n = A, T, C or G
      <400> 1832
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Ctgggcaaca tagtgcaacc tcqtctctaa aaatatatat tttataqatt aqcccqqcat
                                                                       120
gggtggtgca cgtctatagt cccagctact ccagaggctg aggtgggaag atcccttaaq
                                                                       180
cctaggaggc gaggtatcga taatctatna nagctccgtt acactccaac ntgggcttnn
                                                                       240
gaggaangat cacgtaggnt ctaananatg anggaggcca ttt
                                                                       283
      <210> 1833
      <211> 300
      <212> DNA
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      <400> 1833
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cctcacagct gtgcagaagc tattcccaga gggttctggc cccaggtaaa cagattctgc
                                                                       120
tetgggeteg cettgeetee ateceacage cetgtgtget gtetgtggea cagectaqaq
                                                                       180
cagcactgcc tegtggccct ggcccttatg cggctggagc tgatcctgaa gtccagtgtc
                                                                       240
ccagcggtca tggctggcat catcaccatc tacaacctgg tgatggaagt ccttatcccc
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416

<211> 300

<212> DNA <213> Homo sapiens <400> 1834 cccaaaccta atttaggagt aaattttttg tagcagatag ccagatttca gccaatcaca 60 ggcttccagc taacaagact atgcccaaat aaggcaaatg cctcatcaca tgatgctcaa 120 ataaggcagc cacctaggcg aggccaatca ggtaactttt ctactttgct taattgttca 180 gcctgtacaa atttgctgct tatgactgct gagcagagct gtctaaacct cttctggttt 240 qqaqtqctqc cttatatatq aattqttctt tqqtcacata aaattggtta aatttaactt 300 <210> 1835 <211> 300 <212> DNA <213> Homo sapiens <400> 1835 tggctggagg tgagatatgc tggcagcaat actgctctgt tactccttgc tacactgaga 60 tgtttgggta aagagaaaca taaatctagc ctacgtgcac atctgggcac agtacctttc 120 cttgaactta ttcgtgatac agattccttt gctcacatgt ttccctgctg accttcttcc 180 cacctgttgc cctgctacac tcccctcgct aagacagtaa aaataatgat caataaatac 240 tgagggaact cagaggccag cgccggtgcg ggtcctccac atgctgagcg ccggtccggg 300 <210> 1836 <211> 300 <212> DNA <213> Homo sapiens <400> 1836 ggccagtagg tgctaaggtg acaccaccc ttcctccctc tccagaccca tcccaccacc 60 gtgatttgcc catccccagc agcctcatca ctgaccacct gtttttactt gcaggaccca 120 ttccaacaat ctcgtaaaac atggtggatt actatgaagt tctaggcgtg cagagacatg 180 cctcacccga ggatattaaa aaggcgtaag tagttttatt tctgtggtaa tgcattttca 240 cagtggtaca ttggtaattg agtagtataa cttcttctat tgcctatgaa aatggctttt 300 <210> 1837 <211> 300 <212> DNA <213> Homo sapiens <400> 1837 gagactecag getgagetgg etgacegace caateceeet accegeeete tgeeegetga 60 cccggtggtg agaagcccga aggtaacggt ggggggagag aagggcacgg cctctccccc 120 cacctagggc tgtggtgctg gtagccatga cggtggtggc cgtggcgaga tgcccctca 180 gtgcatgagg gcacatatcc cggtggtgcc tttaatggtg acagtctcag gggccagcca 240 agececeace eccaaggaag ceactgtetg eegacececa gggeeggtge ceategggtg 300 <210> 1838 <211> 300 <212> DNA <213> Homo sapiens <400> 1838 aaggettaga teattgaett eagatttttt gtetttteta acaagtgtte aagaetataa 60 tataaatttc cctctaagca ttgtttagcc acatttcaca aatttggaaa tgtttattca 120 ttttcatctt cattcagttg aaaatatttt ctaatttccc ttttaatttc ttctttact 180 cacttattat ttggaaatgt qttatttcat ttccaaatat ttggggattt tcaaatatct 240

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cctgttaaca atttctaaat tagttgtagt cagagaacat attctgtgat ttcaatgctg
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     <211> 233
     <212> DNA
     <213> Homo sapiens
     <400> 1839
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tgttggctcc aggtttttgg cattgtgcct agactgaata aaagcaagca gctccagctt
                                                               120
cttggggctg ctttctggcc actagagcca ggcagtcacc tagttgctgt tacactgaaa
                                                               180
233
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     <211> 212
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
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     \langle 223 \rangle n = A,T,C or G
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tgttggctcc aggtttttgg cattgtgcct agactgaata aaagcaagca gctccagctt
                                                               120
cttqqqqctq ctttctqqcc actaqaqcca ggcagtcacc tagttgctgt tacactgaaa
                                                               180
aaaaaaaaa aaaaaanaaa anaanaaaaa aa
                                                               212
     <210> 1841
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1841
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                                                                60
tgttggctcc aggtttttgg cattgtgcct agactgaata aaagcaagca gctccagctt
                                                               120
cttggggctg ctttctggcc actagagcca ggcagtcacc tagttgctgt tacactgaaa
                                                               180
240
300
     <210> 1842
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1842
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                                                                60
cagecgatgg gttgtccgac tgggagcaga ggaagccttg aggacctact cacagatagg
                                                               120
aattgaagat tatcttgaaa acaatcttcc agtagttctg acgatacttg gagcctggtc
                                                               180
cacqtqcatc ccaccttqqq aaqcctctcc aaaqaqcttt cqqaqctqac actgacaqct
                                                               240
teaqttteee ceaqeaceca qqaqaqeett getgtgtetq tetgeeegge aagagteeat
                                                               300
     <210> 1843
     <211> 300
     <212> DNA
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<213> Homo sapiens

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                                                                       120
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cccaagaccc cagacaccca agtggcatct tgggggtggg tgggcagagg acggggtaat
                                                                       180
qtgaggacga agcgggcacq gagccagatg gccagtctcc aggcctggtc cacggactgg
                                                                       240
                                                                       300
cagggacccc aggcacaaga gctgccaccc ctctgcccgg tttggaaaaa aacaataaag
      <210> 1844
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1844
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ccctgccttg tatttcatga aggtggatac tggcgtgagc tcacagtccg caccaatagc
                                                                       120
caagggcaca caatggctat catcactttc catccccaga aattaagtca ggaggagctc
                                                                       180
catgttcaga aggagattgt aaaggaattt ttcatcagag gtcctggagc agcctgtggc
                                                                       240
ttgacctcac tttacttcca ggaaagtacc atgacccgtt gcagccatca gcagtctccc
                                                                       300
      <210> 1845
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1845
ggaacatcca gtgcctgcag gacgtggagc gctgcctccg ggacacgggt gtgcagggcg
                                                                        60
tcatgagege agagggeaac etgeacaace eegecetgtt egagggeegg agecetgeeg
                                                                       120
                                                                       180
tgtgggaget ggeegaggag tatetggaca tegtgeggga geaccectge eeeetgteet
acqtccqqqc ccacctcttc aaqctqtqqc accacacqct gcaggtgcac caggagctgc
                                                                       240
gagaggaget ggecaaggtg aagaceetgg agggeatege tgetgtgage caggagetga
                                                                       300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
     <221> misc feature
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      <400> 1846
aaaattaaaa acacacagge ccaacaaact caacaaacge taagcacaag aaacatgtag
                                                                        60
gaaactatac caaqqaqtat tataatcaaa ttactcaaaa ccagtgataa ggtgaaaacc
                                                                       120
ttaaaagcag ccagaggaaa aaggacatgc aagaagaata aagacaaagg taatggcaga
                                                                       180
ctttttgcct qaaaqaatqc aagtgagaag acaatatatt aacatcttta aactaatgaa
                                                                       240
agaagancna ctgtcaacct agaantctgt atgaacgtng nccaaaggnn ttcaaannnc
                                                                       300
     <210> 1847
     <211> 299
      <212> DNA
     <213> Homo sapiens
      <220>
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<221> misc feature
      <222> (1)...(299)
      <223> n = A, T, C or G
      <400> 1847
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aaacacacac agaaaaatgt gagtagggaa gaaataggaa aaaggtaaga agcagaaatt
                                                                       120
ttttttttt tnaancggag tttcgntntt gtngcccagg ntgnagngca nnggcncagt
                                                                       180
ctnggttnac cananchtcc accacccagg ttnaagcant tntcnngcnt nagcctcctg
                                                                       240
agtanctggn attntnggcn cccaccacca cnccnggtta anttngnntt tttagtaaa
                                                                       299
      <210> 1848
      <211> 165
      <212> DNA
      <213> Homo sapiens
      <400> 1848
gggcggcttt ggcctcacgc ttcggggaga ctcgcctgtc ctcatcgctg ccgtcattcc
                                                                        60
agggagccag gccgcggcgg ctggcctgaa ggagggcgac tacattgtgt cagtgaatgg
                                                                       120
gcagccatgc aggtggtgga gacacgcgga ggtggtgacg gagct
                                                                       165
      <210> 1849
      <211> 273
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(273)
      <223> n = A, T, C or G
      <400> 1849
cagcaatgtt ttgtggcttt tattgtacaa gcttttcacc tccttggtta agttagttct
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taagtgtctt attctttac gtgctattat aaatggaatt attttcataa tttccttttc
                                                                       120
atggtgttaa ncattatncg nactcacntg cnactnaata antgcacntt gacnnttcca
                                                                       180
gnnacatgaa acnattnann ntnnnanten tacannaagn acnancaten attngentnt
                                                                       240
tnctnatnng annntnntgn atntanaann ccg
                                                                       273
      <210> 1850
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1850
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tetgtgtata tagtgtacat aaaggacaga egagteetaa ttgacaacat etagtettte
                                                                       120
tggatgttaa agaggttgcc agtgtatgac aaaagtagag ttagtaaact aatatatttt
                                                                       180
gtacattttg ttttacaagt cctaggaaag attgtcttct gaaaatttga tgtcttctgg
                                                                       240
gttgatggag atggggaagg gttctaggcc agaatgttca catttggaag actctttcaa
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      <210> 1851
      <211> 206
      <212> DNA
      <213> Homo sapiens
      <400> 1851
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ctgaaacagg qtcgggatgc cgatgccggc ttggagttag agatgagtca ccgctgagag
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cagctgcagt agctgagcag tggcagcaga gaggcagacg tgagctgagg gcgcagaggc
                                                                        120
                                                                        180
aggcagcate tetgagggte eccaaggage atggetggga geegtgaggt ggtggeeatg
                                                                        206
gactgcgaga tggtggggct ggggcc
      <210> 1852
      <211> 295
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(295)
      <223> n = A, T, C or G
      <400> 1852
ttttattttg tcacccaggc tgaaatacag tggcaaaatt atacctcaat gcagcctcaa
                                                                        60
ccccctggg ctcaagggat cctccaaatt cagcctcctg agtagctggg agtataggct
                                                                       120
tgcaccacca tgcccagcta atttttttt tttnganctt tngnattttc agtagngaca
                                                                       180
nagtttcccc atgtngctna ggctggngta aaactccngg gctnaagcaa tcntcccacc
                                                                       240
                                                                       295
tgggccttcc aaagggctgg nattacaagg ggnanccant gtacccagca aaata
      <210> 1853
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1853
aattacagge ttgagecact geaceaggee etaagagete taaaetttet tateacacag
                                                                        60
tqaattaaaa tattttqqat cttaactatc ccatattaag cgatcctttc ctcaaatgaa
                                                                       120
agaaaatact taattagaac atatatgttt aaactgatac agtaagttgt ttgtaagcct
                                                                       180
ctagaactat agtgagtcgt attacgtaga tccagacatg ataagataca ttgatgagtt
                                                                       240
tggacaaacc acaactagaa tgcaggtgaa gaaaatgctt tatttgtgaa atttgtgatg
                                                                       300
      <210> 1854
      <211> 289
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(289)
      <223> n = A, T, C or G
      <400> 1854
gtggtacctt ggctttaggt tttcattcgc acggaacacc ttttggcatg cttaacttcc
                                                                        60
tggtaacacc ttcacctgca ttggttttct ttttcttttt tctttctttt tttttttnn
                                                                       120
ngtggnggtt ggttttaaaa ccccnnnanc nnnaaaaccn tttttnnaaa nccntngaaa
                                                                       180
nncnancnng gentttttte ececenttnn necaanggng gnnttaaang nangnnngge
                                                                       240
ngggggaann tttngcaacc anggggnntg ggggnctaan cggtcaaaa
                                                                       289
      <210> 1855
      <211> 300
      <212> DNA
      <213> Homo sapiens
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                                                                     120
caggtaaggg attttattat tacctttttc tctaaatata tatcttcttt ctgaaatgtt
                                                                     180
gactctgttt ttaggtttta aatggggtgc aggagagctg gaggtcctac ctctgataga
                                                                     240
gattaaattt cctactttca ttcagtagtt aaagtgtaat gatttctggt tatctaattc
                                                                     300
     <210> 1856
      <211> 300
      <212> DNA
     <213> Homo sapiens
      <400> 1856
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tttccccaca aaagaaacac ttaacagagg caagtgcaat ttataaattt atatctaaag
                                                                     120
gggaatcatg attataagtc cttcagccct tggactctaa attgagggga ttaaaaagaa
                                                                     180
tttaaaataa ttttgaacga atttattttc ccctcagttt ttgagggcat taaaaaggca
                                                                     240
ttaaatcaag acaaatcatg tgcttgagaa aaataaaatt aatgaaaaca cagcacttat
                                                                     300
     <210> 1857
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1857
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ctaacgtcat ttatcaggtc ttttggaggg attgttaggg tttttttagg tttaqaatca
                                                                    120
tattgtgagt gaacagagat aatttgactt cctctttttc tatttagatg ccttttgttt
                                                                    180
ctttttcttg cccgattgct ctgggtagga cttcagtact atgttgaata gaggtggtga
                                                                    240
gagtgggcat cettgtettg ttettagggg ggatgettte acetttgece atteagtatg
                                                                    300
     <210> 1858
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1858
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attttcagaa gaggaacgag taagagaact caagcaagaa aagaaacgcc aaaaacggaa
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gaatagacga aaaaataagt gtgtgtgtga tattcctact cccttacaaa cagcagatga
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aaaggaagta agccaagaga aggaaacaga cttcatagaa aatagcagct gcaaagcctg
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     <210> 1859
     <211> 300
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caccaatate acagtggaca ttgggcggac tccgtcgtgg ccccctcggg gctgacacta
                                                                    180
atggacagag geteteggtg cegaaaattg cetgecagag gactgaceae ageetggetg
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gcagctgctc tgtggaggac ctccaggact gagactgggc tctgttttcc aagggtcttc
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<210> 1860

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<211> 300
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      <213> Homo sapiens
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tcactttgtc gcccaggccg gagtgcagtg gtgcgatctc agatcagtgt accatttgcc
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tcccgggctc aagcgattct cctgcctcag cctcccaagt agctgggatt acaggcacct
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gccaccatgc ccggctaatt tttgtaattt tagtagagac agggtttcac catgttgccc
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      <212> DNA
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      <400> 1861
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ctccattttg atctgtatta agaaaaattg ttctgctttg agatgctgtt aatctgtaac
                                                                       180
tttagcccca accetgtget cacagaaacg tactgtattg aatcaaggtt taatggattt
                                                                       240
agggctgtgc agcatgtgcc ttgttaacaa tatgtttgca ggcagtatgc ttggtaaaag
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      <210> 1862
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1862
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tgcgcaacaa gagcgaaact ctgtctccaa aaaagagatg atctcactgt gtcacccagg
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ctgacgtgta gaggcatgat catagctcac tgtatcctca aactcctcct gggttcaagt
                                                                       240
gattgtcctg ccttgacctg ctgagtagcc accaccatgc ctggctcaaa atggatttga
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      <210> 1863
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1863
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                                                                       120
tegtteagaa ateagtgtte agtgtteate agageageea egettgagag aaacagtgtg
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agaaaacccc cctgagggtt gggtctgatt gtacactgtt gcacgcatgc agcagaaaaa
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tatgtatatt attgtaaata gaaatgacca catcagaatg tcacacatgc tgttctggag
                                                                      300
      <210> 1864
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1864
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caaagatcag ttgtccataa atatgtggct atatttctgg gatctctctt ttgttccctt
                                                                      120
ggtctacatg tetgttttta atgggagtat catactgttt etattactgt aattttgatg
                                                                      180
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tatattttga aatcaaatag tatgatgctg ctagctccat tctttatgct tgagagtgct
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ttggctattt agggtctttt ctagttccat acaaatttta ggtttatttt tatgcttctg
                                                                    300
      <210> 1865
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1865
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gtcacagtgg agaaggcaga gagcctcgtg gatcagatcc aagagctctg tgacacccag
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gatgaagttt ctcagactct ggctggtggg gtaacaaatg gcttagattt tgacagtgaa
                                                                    180
gaactggaga aggaattgga catcctcctt caggatacca ccaaagaacc tttggatctg
                                                                    240
                                                                    300
cctgacaacc cccgcaatag gcattttacc aacagcgtgc ctaaccctag gatctcagat
      <210> 1866
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1866
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tccagaaaga tttggaaaca gtagtgtggg ctttggcagt aattcccatt cccaagcacc
                                                                    120
agagaaagtg acgcttcttg tagatggcac acgttttgtt gtgaatccac agattttcac
                                                                    180
tgctcatccg gataccatgc tgggaaggat gtttggacca ggaagagagt acaacttcac
                                                                    240
tcggcccaat gagaagggag agtatgagat tgctgaaggc atcagtgcaa ctgtatttcg
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      <210> 1867
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1867
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tegettttgg ageagaeagg ettggggagg geagtgatgt gageeageee caeceageae
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agaccaatgc tgcttaatgt tacagacgct gagcagcgag ctgtcccagg cccgagatga
                                                                     240
gaataagagg acccacaatg acatcatcca caacgagaac atgaggcaag gccgggacaa
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      <210> 1868
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1868
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gtctcggtag catatatact aaaattggaa ggatatggag aagattagta tggtccctgc
                                                                     120
gcaaggatga cacgcaaatt tgtgaattgt ttcataatta ctatttaaaa aaaaaaacct
                                                                     180
ctgtaggtat ttctccaaag aagctaagca gatgcccaat aaacatatgg aaagatgttc
                                                                     240
agcatcacta ataattaggg aaatgcaaat caaaaccaca gtgagatgtt attttgcgac
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      <210> 1869
      <211> 290
      <212> DNA
      <213> Homo sapiens
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       <222> (1)...(290)
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teggatagae ttattggaat ttacaagaea tacaacataa caaaaagtgt tgetgtaaat
                                                                        120
ccaaaagaaa ttgcatctaa gggactttga tggnccttat nctattgatg atncttacng
                                                                        180
acgatgatgg ctncnncaga tocattcatg anntgatnot aanaaatatt acttggtatt
                                                                        240
canancgagt tntaactgaa atctccttgn ggagctcctg atnctggggg
                                                                        290
       <210> 1870
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1870
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gtttaatacg aagtggcggc atagccctgc cgagatgtcg gtgatggcct ggatgctqta
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accacaacct gtggctaaaa attttatttt ctatccttta cccgtcatta tcattagttg
                                                                        180
ctatgattct ttctgcattt tcggttaact atcatttcca aagacttqtc attcaqtaat
                                                                        240
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                                                                        300
      <210> 1871
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 1871
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cggagtggca cagetttact cageccegte ttggtgaagt gagtttteet aagtggneta
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caaatctatt ntaattntct ttagacttta tanntaacta actggattct gactataant
                                                                        180
tncaattanc tatgantcta ctacttctac taatagaaag ctattattnt tcctcantnn
                                                                       240
taatntagtt atgttengat ttanntggan atttacttee eeteetattt ttttaattga
                                                                       300
      <210> 1872
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1872
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cttttaaaaa atttgttatt tttgctactc gggaggctga ggcgggagaa tcgcttgaac
                                                                       120
ccaggaggct gaggttgtgg tgggccgaga ttatgccatt ggactccagc ctgggcaaca
                                                                       180
agagccaaac tccgtctcaa aataaacaaa caaactaact aaagaagcct aacagtaaat
                                                                       240
ggcagctggt gtgtatgtga ccctgttgct ctgcttcctc cagggacacg gccaacacgg
                                                                       300
      <210> 1873
      <211> 300
      <212> DNA
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<213> Homo sapiens

acgggagcta gtgacggcat ttctacgatc ctgaagatcc tcgtctccg gggcggcaag 60 tcacggacag gtgtgatgat ccccatccca caatatcccc tctattcagc tgtcatctct 120 gagctcgacg ccatccaggt gaattactac ctggacgagg agaactgctg ggcgctgaat 180 gtgaatgagc tccggcggc ggtgcaggag gccaaagacc actgtgatcc taaggtgctc tgcataatca accctgggaa ccccacaggc caggtacaaa gcagaaagtg catagaagat 300

<210> 1874

<211> 156

<212> DNA

<213> Homo sapiens

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<221> misc feature

<222> (1)...(156)

<223> n = A,T,C or G

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<210> 1875

<211> 300

<212> DNA

<213> Homo sapiens

<400> 1875

gttttccttt atatgggagt ttcctcatta aaaggaatcc agttatttga ccgtataaaa 60 ttatttggaa tgcctgctaa gcatcagcct gatttgatat acctccgtta tgtgccgctc 120 tggaaggtcc atattttcac agtcattcag cttacttgtt tggtcctttt atgggtgata 180 aaagtttcag ctgctgcagt ggtttttccc atgatggttc ttgcattagt gtttgtgcgc 240 aaactcatgg acctgtgttt cacqaaqaqa qaacttagtt ggcttgatga tcttatgcca 300

<210> 1876

<211> 157

<212> DNA

<213> Homo sapiens

<400> 1876

ageggecatg gecaacttgg aggtgaagaa ageatteatg ggaceactga agaaagaeeg 60 aattgeaaag gaagaaggag ettaatgeea ggaacagatt ttgeagttgg tggggtetea 120 ataaaagtta tttteeactg aaaaaaaaaa aaaaaaa 157

<210> 1877

<211> 300

<212> DNA

<213> Homo sapiens

<400> 1877

aggacccagg caaccctcaa caacctgcct gcgaagaaag ctcccttgga aggggctgcg 60 ccagcacatt tccctgccc taatcacaaa tgccctgggc ccctccaccg gagattcgcg 120 ttcagtaggt cagtgacggg gccgggaatc tgccatttga aacgaatact cccagttatt 180 tgtttcatca agcagataga aaaacatgga ttccttagaa aggttctgca actgaccatt 240

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cattaactcc tgagggcctc atgtcaggtt ccgtgcatgc actgagcacc tactgtgtgc
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      <212> DNA
      <213> Homo sapiens
      <400> 1878
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cttgttgtga tagttatatt gagtaattgc ccatctggag gtatggtttg tgtcatcttg
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acttcagctq qqtaatgcta qqctaactgt tcgaaactcc ccccatgcaa gaggagtctg
                                                                       180
caactecate tetqettggt ttgtttcaaa actggeeect gaaattteta agcaagtaeg
                                                                       240
taattagata aqtqaacact qttcatggac atgcctggtg ggaaagggag aaactaaggg
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      <210> 1879
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1879
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tagtecagag tttgtaccag gecaageett ttgeteacat acagagtetg ceccaaatte
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tccaagaatt ggaagcccat tgagcccaaa gaaaaacagt gaaacaagta ttcttcaagc
                                                                       180
aatqtctaqa qqtttqtcta ccaqttatqc ctqacttqqa ctcaqaacct tqqataqaaq
                                                                       240
ttaaaaaaag acatcatcca gccccagtga aattgaggga atcagtgtct gtccctgaag
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      <210> 1880
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      <212> DNA
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      <400> 1880
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gtgtgctgta tatgagcact gggttcccag agaaaagatc ctcaccacta atacttggtc
                                                                       120
ttcagagctt tccaaactgg cagcaaatgc ttttcttgcc cagagaataa gcagcattaa
                                                                       180
ctccataagt gctctqtgtg aagcaacagg agctgatgta gaagaggtag caacagcgat
                                                                       240
                                                                       300
tggaatggac cagagaattg gaaacaagtt tctaaaagcc agtgttgggt ttggtgggag
      <210> 1881
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1881
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ccttttaaat gcgtattctg tctctttcta actcctttgt ctccgcagga ctcggggtat
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ctgctgggtg gtgtggggct ggtttcccca atatctaaga tcagtgcttg gggcattttg
                                                                      180
cagatectge actggatgga teageggaca acacacagae eggtaatetg ggteaateag
                                                                      240
ttctgccatc ccacccaqaa caqaaaacag catgaaaaac tcactttaac cccctatgaa
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     <210> 1882
     <211> 149
     <212> DNA
     <213> Homo sapiens
     <400> 1882
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aatcgaggct tgtcaaggac ataaatgtca cgtccagctc tgatatgctt cgcactgagc
                                                                       149
acatcacatt taggacgttg aagattttt
      <210> 1883
      <211> 206
      <212> DNA
      <213> Homo sapiens
      <400> 1883
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                                                                        60
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acacacatg aggetgeggt gaageggee gaccacetgg aggagetget ggageageae
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aggaggccca cgccaagtac caagtgacca gggatgccgg gaacactgtc gaagaacgga
                                                                       206
aggcagagga cagaggctgg acgtgg
      <210> 1884
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1884
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                                                                        60
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tggtgttgga ggtacttctg aaaatgatga cccttccaaa atggttatgg ttctggcagc
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tactaatttt ccctgggata tagatgaggc tttaagacga cgccttgaga aacgaatcta
tattcctttg ccgtcagcaa aaggcaggga ggagctatta cgaataagtc tacgtgagtt
                                                                       240
                                                                       300
ggaattggct gatgatgttg accttgcaag tatagcagaa aacatggaag gttattcagg
      <210> 1885
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1885
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tccccagaca aatgagtgga cccaggtatt ttcacatact tttgaggaca gcaaagatca
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cctggtggcc atcaagcaga ccatctggag gcaaaactcc ttatctgagg aattcagaag
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      <210> 1886
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      <212> DNA
      <213> Homo sapiens
      <400> 1886
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gacttttgct tggaaaaaag acaatgaact actgcatgat gctgaaatgg aaaattatgc
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acaceteegg geecaaggtg gegaggtgat ggagtatace accateette ggetgegega
                                                                       180
ggtggaattt gccagtgagg ggaaatatca gtgtgtcatc tccaatcact ttggttcatc
                                                                       240
ctactctgtc aaagccaagc ttacagtaaa tagtatgtga tctgactttt cctttagcat
                                                                       300
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      <212> DNA
      <213> Homo sapiens
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                                                                       120
caggateget geogeogect gggetecaaa ateegggage teetggtget geocatttat
                                                                       180
gecaatetge ectetgaeat geaggeeegt atetteeage ecacaceace tggggeaega
                                                                       240
aaggtggttg tggcaacgaa cattgctgag acatcactca ccattgaggg catcatttat
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      <210> 1888
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1888
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gatcatgget cacageagee teteaacete eetgggetea ggtgateete eeaceteage
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ctcctgagta gctggtacca caggtgtgta cctggttaat tttttggtgt ttcttataga
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qqcaqqatct ccttatgtta cccacacqg tctcaaactt ctggacttta ggaatcctcc
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      <210> 1889
      <211> 190
      <212> DNA
      <213> Homo sapiens
      <400> 1889
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tgaagaaaga ccgaattgca aaggaagaag gagcttaatg ccaggaacag attttgcagt
                                                                       120
tggtggggtc tcaataaaag tttgtttcag tggaaaataa cttttattga gacaaaaaaa
                                                                       180
                                                                       190
aaaaaaaaa
      <210> 1890
      <211> 187
      <212> DNA
      <213> Homo sapiens
      <400> 1890
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tcaccgtgtg catcgcaccg tgctgtaaat gtggcagtcg ctgtgttggg agagccggcc
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                                                                       180
acgcccttgg ctttagagct gtgttgaaat ccattttggt gatggctttt aacccaaact
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cattgca
      <210> 1891
      <211> 300
      <212> DNA
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      <400> 1891
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aggegegtet caccetgttg eccaggetgg agtgeaatgg egegttetet geteactaca
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gcacccgctt cccaggttga agtgattctc ttgcctcagc ctcccgagta gctgggatta
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caggtgccca ccaccgcgcc cagctaattt tttaattttt agtggagaca gggttttacc
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      <210> 1892
      <211> 300
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<212> DNA

<213> Homo sapiens

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<400> 1892
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tqcqqqcqaa qaqatctacc cqtctccctc cctcccacag ttaccattgg ccttgtcatc
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gcaagcattt gacaaagact tgcttgtctt gggcctgtca cctcctgaaa ggctgcttta
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                                                                       300
gctgtggatg cccttgatta agggagagag cgcctaggag ctgcctgccc cagctggggt
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      <211> 300
      <212> DNA
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      <400> 1893
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tottattaca caccatoott catttttctc attttcctct tttgggattc atatattaag
                                                                       120
                                                                       180
tattagggca ttaaaacaca actgtatata taaagaaaaa tataaagtaa ccacacatgc
tcagggaaag acacaggete agaaaatgee tgagaagaac ttagttteac accecagget
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                                                                       300
gatcctaagc accgagacag cctacaacaa tccaaaaaac aaaaacaata aataaaaagt
      <210> 1894
      <211> 174
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      <213> Homo sapiens
      <400> 1894
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cattgggccc ggtacccagc ttttgttccg tttagtgaga gaggtcagaa attg
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      <210> 1895
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      <212> DNA
      <213> Homo sapiens
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aaaccctagc taaatgcctt gatgtccctt ttgctatctg tgactgtaca actttgactc
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aggetggata tgtaggegaa gatattgaat etgtgattge aaaactaete caagatgeca
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ttggtgatat tttggaggat aagccagagc tcactcctgt cgccatacag tcaggcaagc
                                                                       180
tgctagctca gagacttttt ggggcctctt tagaaaagat atatcatact ttgttctggc
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<210> 1897

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tagggcccaa tggagcaggg aagtcaactc ttctgaagct gctaactgga gagctactac
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ccacagatgg catgatccga aaacactctc atgtcaagat agggcgttac catcagcatt
                                                                    240
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cctcaacaac gccatgtcct ccctgtactc gacagagtcc gactccatct cagaaannna
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aaaanaaaat ttnntgaann ananantnga aaaa
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     <213> Homo sapiens
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caccacccc atctcagaac agaagggtgg gaagccagag ccttctgcca tgccccagcc
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                                                                    209
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ctttgtattg agagaagcca aaattttggt caggccctgg gacatctaaa gtcaccaatg
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taactacacc atacagatta aaccetcaca tgatcatgta agctatgcag ttacccaagc
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gatacatgaa gaacaggttt ctgaggtcta agaccetgga tggtgcccac tggaggatat
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                                                                       300
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ctgaatttct ctgtttatgt tgggtcttta gctgtactat gtggtctctt ccattgattt
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      <211> 300
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                                                                       180
tgagaagece tatgaatgca atgaatgtgg gaaggetttt aggeggaget caaaceteat
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      <212> DNA
      <213> Homo sapiens
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gagagagtgg agetgettta ttgccettgg agecegeget eteggagget gtettetgte
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ggttaggttc ctggaagcct ctggtcacaa cattttcacc aactgatcaa tagataacct
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tgttttgttt atgtttgtgt ttagagacat ttaatatata ttgttgactt actaacatcq
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<210> 1906

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<211> 148
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                                                                       148
genageagan ggatacagan aentanca
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      <211> 300
      <212> DNA
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      <400> 1907
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                                                                       120
caaacccctg tatccagtta tctatgatag caatggtgtc gtcctttcaa tgcctcccat
                                                                       180
catcaatggg gatcattcca gaataacagt aaatactaga aatatttta ttgaatgcac
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      <213> Homo sapiens
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gattgcaagg cctgaactcc agctggatga gggctggatg gatgatgaca ggaacgactt
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gcccatgcct ccaqctacaa aacaattcaa ttgctttttt tttnggncca aaataaaacc
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      <211> 300
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240

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.010. 1010				
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tccaggtagc agagatatct tggatggagtacacaaggaa gatgctgaga aggaagtag				300
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-				
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continue taatatigat tattitiati	. Lageggeadg	aacccaagaa	5345 cac95a	00

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ttcttcaaaa gattctgaga tgctctcagt gtttcattgc tactttaatt ttaatcatta
                                                                       180
tgggattgat tgctgtcaca gctactgccg cggcagctgg agttgctttg catttcacag
                                                                       240
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      <211> 262
      <212> DNA
      <213> Homo sapiens
      <400> 1920
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cetagecete ageceacetg gggagtttac tacetgggga ecceecttqe ceatqeetee
                                                                       180
agctacaaaa caattcaatt gcttttttt tttggcccaa aataaaacct cagttagttt
                                                                       240
tgccaaaaaa aaaaaaaaa aa
                                                                       262
      <210> 1921
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1921
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aagcagagag agaaggegge aggeateage gttttettet atgaaettat aagateaaaq
                                                                       180
actitaagac titcactati tettetaceg etatetaeta egaaetteaa agaggaacea
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ggagtacgga aggagcatga aagtggacaa ggaacgtgac cattgaagca ccacagggag
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1922
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gttcgaattt cggccggacg gtgtttacgt gtaattgttc accataggac gcatgaagag
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taccaagcaa gaggggagag gaaagcttag atatgccaac aacagcaatt acaaaaatga
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      <210> 1923
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      <212> DNA
      <213> Homo sapiens
      <400> 1923
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ggatagette tacegtgtee ttacetegga geagaaggee aaageeetga agggeeagtt
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caactttgac cacceggatg cetttgacaa tgaactcatt etcaaaacae tcaaaqaaat
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      <210> 1924
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      <212> DNA
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<221> misc\_feature

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totggcottt catggcaatg aaaattttaa gaagaaagat ttaaagtatt ttaattttaa
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agagtgtgtt ataaaataat gtactgaatt ctttatcccc ttttatcatc ctttcagttt
                                                                        240
ttattaatct actgtatcat aaattctgta antngatgng agga
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      <210> 1929
      <211> 291
      <212> DNA
      <213> Homo sapiens
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                                                                        120
ttattettga tgaaaagett tgtttgttet tgtttttaag tttgcaetea aatettaaga
                                                                        180
aataaatcca cccatgttat caaaaaaaaa aaaaaaaaan ttnnnccttn aaaannaann
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      <210> 1930
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cagtgtttgt tagttctcgt tcaagtctag gaactctgcc gagtaacagg tatctcaatt
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ttgccatcct ttctttctgc ataqacaqqa qtqttcttaa atcttctcct qtaaaqcaaq
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teatetetga ttteeetgag gateattget eeegtataet gttgttgggg tgageettet
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cacagcaggt gettaaattt gaggteecag ataacaaage egtgggtetg gtaceaqgee
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ctgtgggtta gagcatgcag cccacgagtg ctgagagagc cttggccccc tgaaataatc
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caaaaacaaa gccagtcatc tgaacacaac ttataccata gtcaaacctt caatggcatc
                                                                       300
      <210> 1932
      <211> 300
      <212> DNA
      <213> Homo sapiens
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gccatcgcat cccctgtgac ttgcacgtat acatccagat ggcctgaagt aactgaagat	180
ccacaaaaga agtaaaaaca gccttaactg atgacattcc accattgtga tttgttcctg	240
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<210> 1933	
<211> 208	
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ctgtgcagac attcaattgt tattaaaaaa aaaaaaaaaa	180
aaaaaaaaaa aaaaaaaaan ccccccc	208
adadadada adadadadii CCCCCCC	200
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<213> Homo sapiens	
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ccagcatggt ggatgatgtc ttctacattg ttaagaagag cattgggcgg gctctgtcca	60
getecageat tgaetgtete tgtgecatga teaacetege caccacagag etggagtetg	120
acttcaggga tgttctgtgt aataagctgc ggatgggctt tcctgccacc accttccagg	180
acatecageg eggggtgaca agtgeegaga acateatgea eageageete eageaaggea	240
aatttgacac aaaaggcatc gagagtactg acgaggcgaa gatgtccttc ctggagactc	300
<210> 1935	
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<212> DNA	
<213> Homo sapiens	
<400> 1935	
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gatggatatg ttctgccaag ggttggtttg cgcattcaca gttctccgca agaattgatt	180
ggctccaatt cttggagtgg tgaagaaaga aaaaagttga actagatttg gtctgatgca	240
gttacagatt tacaaactgt gccccaccc tcctgcagac accttccact cctcattctt	300
getucagaet tacaaactyt geteetacet teetyeagae accounted tottoatees	300
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<212> DNA	
<213> Homo sapiens	
<400> 1936	
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aaaattettg geateaaaaa ageaegaage tgeaaaagaa gtatttgtga aaatteetea	180

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240
ggattctata gcaqaaatct ataatcaqtq cqaqgaacaa ggaatggaaa gtccacttcc
tgctgaagat gataatgcta tccgagaaca tttgtgcatc agagcttatt tggaagccca
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1937
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gtactcactt tgtccagtta tgctgccaaa gaaatattcc tctgctgttc cttcaaaaca
                                                                        120
ttactggatt tatggttggt agagagtatg aagctgaagg aattgccaag gatggtgcca
                                                                        180
                                                                        240
agatggtggc cgctgtggcc tgtgcccaag tgcctaagat aaccctcatc attgggggct
cctatggagc cggaaactat gggatgtgtg gcagagcgta tagcccaaga tttctctaca
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      <210> 1938
      <211> 149
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
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ntggagnagg atnangntct atatgactt
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1939
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gttgtgggtt ctaacttaag ttccagacca gctagtccaa attcttcctc aggacaggct
                                                                        120
tctgtaggaa accagactaa tactgcttgt agtcctgaag agtcatgtgt tttaaaaaaaa
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cctatcaaac qaqtatataa aaaatttgat ccagttggag agattttaaa aatgcaggat
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                                                                        300
gagetettaa agecaattte eagaaaagta eeagaattge eettaatgaa tttagaaaat
      <210> 1940
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1940
ggggcttatt tcatccctac agtctcgacc atagaagaca gctacaccca agggggccat
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tttagaggcc caccetcagg ggcacattet ettetcagg gatgtteett getgagaaaa
                                                                        120
agaattcqqc qatatttctc ccatttqctt ttqaaaqaaq agaaatatqq ctctqttccq
                                                                        180
cctggctcac cggcggtcag agtttaaggt tatctctctt attccctgaa cattgctgtt
                                                                        240
                                                                        300
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      <210> 1941
       <211> 300
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440

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<212> DNA
      <213> Homo sapiens
      <400> 1941
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gcagcttgaa ggaaagactt ttaaaggtac atgatgaaga aaaccaaatt aaataattgg
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                                                                        120
                                                                        180
aatcaqaqqt taattqqcaq tttatgattg gttaagccta aatttttgtt tccctcaatt
cagtaatttg caaaaaaatg catttgagtt agagttttta aaaaatagga acccagggac
                                                                        240
tagagtaacc tccgtctaat tgcctgctac ttagttattt tcacactcca caggggactg
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      <210> 1942
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1942
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ttgggcagag ctgacctcag agaacagtgc gggtctctcg ccctcctggg gcagtcccca
                                                                        120
ggacgaggtg ccaggtgcct ggcccatgtt gcagggggcc gtggagccca tgcagatcga
                                                                        180
cgtggacccc caggaagacc cgcagaatgc acctgacgtc aactacgtgg tggagaaccc
                                                                        240
                                                                        300
cagcetggat etggaacagt acgeggecag etacagegge etggecactg ggtgecacce
      <210> 1943
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1943
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qccctcqtqq qcqttqaqtq acactqattc tcgcgtgtct ccggcctctc cggcagggag
                                                                       180
tcctagcgca gactttgcgg ttcatggaga gtctctggga gacaggcacc tgcggacgct
                                                                       240
gcagataagt tacgacgcac tgaaagatga aaattctaag ctgagaagaa agctgaatga
ggttcagagc ttctctgaag ctcaaacaga aatggtgagg acgcttgagc ggaagttaga
                                                                       300
      <210> 1944
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1944
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                                                                        60
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ctgccaaaga aatattcctc tgctgttcct tcaaaacatt actggattta tggttggtag
agaqtatqaa qctqaaqqaa ttqccaaqqa tggtgccaag atggtggccg ctgtggcctg
                                                                       180
tgcccaagtq cctaagataa ccctcatcat tgggggctcc tatggagccg gaaactatgg
                                                                       240
gatgtgtggc agagcgtata gcccaagatt tctctacatt tggccaaatg ctcgtatctc
                                                                       300
      <210> 1945
      <211> 230
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1) ... (230)
      <223> n = A,T,C \text{ or } G
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gatctacatg agaagtatag tggctctacc ccctgaaaga gggtggatgc agntgcttgt
                                                                       120
gntncatggg gtgactgtca atcggtatnt actgnanacn tatgactnna ctcctncatc
                                                                       180
cctantanta gcgtanatnn gtnntttnag gatctatttn tngttgntnt
                                                                       230
      <210> 1946
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1946
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ttcctgtgaa tcatgaggga cagaagatcc atatagaaga agacaatagc tttgatcttc
                                                                       120
tattacaaga aaaggaatgc cagtgtaaga gatggcatga tatggaagtg tattcctttt
                                                                       180
                                                                       240
caggoetgea gagtgtccct cccttggete cagaacgaag atccacactt gaggactact
ctcagtcgct gcacqccaqa actctgtctg gctctccccg atcctgttct gagcaagctc
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      <210> 1947
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1947
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                                                                       120
tcacggacgc cgagctttag ttaactctca cagtggagga aggcaggaat gtcaggcctc
                                                                       180
tgaacccaag ccaaqccatc acateccetg tgacttgcac gtatgcacgt atgcacctag
                                                                       240
                                                                       300
atggcctgaa gttactgaag aatcacaaaa gaagtgaaaa ggccctgccc cgccttaact
      <210> 1948
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1948
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agccttggtg aaataaccag tgtttccaat tgtgtcctgt tacaaaacaa aacagattct
                                                                       120
                                                                       180
tactgaattt atgcaaacaa ctacattgcc ataaagtaag aatactcatg aaaagtttcc
aaattetgga gaacteaggt agaggggaga agtaaatttt geteacaaaa gtateettta
                                                                       240
caatcagagt agcagtcttc caaacaggat gttgcccgtt catcatggaa cggccatcca
                                                                       300
      <210> 1949
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1949
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acttaaatgt aatgggattt gttttcaaaa gatttgactt ttctctgtaa aaaacacagc
                                                                       120
aacaaggcaa cagggaatat taccaaagtt tcccaaaggc ttgtatagga tttgaaaaaag
                                                                       180
ttgggggaag aatttaaccc taaaagctta actgattttc aaacacctgc aaatacataa
                                                                       240
ttacagatcc tgtgaagctt aaccttggtg gtgttaaatg ttagctagaa tgtcacaagg
                                                                       300
      <210> 1950
      <211> 300
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11> 300

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<212> DNA
      <213> Homo sapiens
      <400> 1950
gtatactttg acactgagaa caaagagaca gttatatctg gaatgggaga attacacctg
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gaaatctatg ctcagaggct ggaaagagag tatggctgtc cttgtatcac aggaaagcca
                                                                        120
aaagttgoot ttogagagac cattactgoo cotgtooogt ttgactttac acataaaaaa
                                                                        180
caatcaggtg gtgcaggcca gtatggaaaa gtaataggtg teetggagce tetggaccca
                                                                        240
gaggactaca ctaaattgga attttcaqat gaaacattcg gatcaaatat tccaaagcag
                                                                        300
      <210> 1951
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1951
ccggcatgtc tttctcccgc aagagctata ggctgacctc agatgctgag aaatccaggg
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tcacaggcat tgggcaggag aagctgctga atgactacct gaaccgcatc ttttcctctt
                                                                        120
ctgaacatgc accccagca gccaccagca ggaaacccct gaacttccag aacctgccag
                                                                        180
aacatttgga ccagttgcta caggtggaca atgaggagga ggaaagccag ggacaggttg
                                                                        240
aagggegget tggeecatee aetgagggee tggaceaeae aggeggettt gaggggette
                                                                        300
      <210> 1952
      <211> 298
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(298)
      \langle 223 \rangle n = A,T,C or G
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tggnntgcnq qatengnteq qntctntcca tqnqacaacn ctenecacac qccaaccccq
                                                                       120
ttcannaacg ccctaanggg gaacttanng gggtgaatcc cctgccacag accccgnacc
                                                                       180
tggagnagga cttgaaggan gtgctgcntt ctgangctgg catcnaactc atcatcnagg
                                                                       240
actacatcan gecenagaan cataatagga aneetggnet gengeggane encateaa
                                                                       298
      <210> 1953
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1953
ggccatcctg gccatccaca aggaggccca gaggatcgct gagagcaacc acatcaagct
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gtegggeage aaccectaca ccaccgtcac cccgcaaatc atcaactcca agtgggagaa
                                                                       120
ggtgcagcag ctggtqccaa aaqcctctag aactatagtg agtcgtatta cgtagatcca
                                                                       180
gacatgataa gatacattga tgagtttgga caaaccacaa ctagaatgca gtgaaaaaaa
                                                                       240
tgctttattt gtgaaatttg tgatgctatt gctttatttg taaccattat aagctgcaat
                                                                       300
      <210> 1954
      <211> 300
      <212> DNA
      <213> Homo sapiens
```

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<400> 1954
                                                                         60
cccgcctgcg cccaggtgaa atacacagcc atgttgctca cacaaagcct gtttggtggg
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ctcttcacac qqqcacqtat qcaatttqqt gccqtqactc qqatcqgggg acctcccttg
                                                                        180
ggagatcaat cccctgtcct cctgctcttt gctccgtggg aaagatccac ctatgacctc
                                                                        240
aggteetcag acegaecage ecaagaaaca teteaceaat tteaaateeg aaggeaggaa
                                                                        300
tgtcaggcct ctgagcccag gccaggccat cgcatcccgt gacttgcacg catacatcca
      <210> 1955
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1955
agcaagtcag caaatgtggg agatggaaaa ctggcttcct ccacccacct aggttctttg
                                                                         60
                                                                        120
gctgggctac aaattaaatg gacataaaat agattaacag gagaaaaaac acagtaatta
tgtgtatatg cctgggagtc ccacaaaata tgagactcaa aagaagggtc cgaagaggga
                                                                        180
                                                                        240
agettatata geceeetgag ecacagaaag gaatagggae etggggette tggtgggtgg
                                                                        300
tggagacaag ttatggaaga gtgaggggag gaagtgtagg gtgagtaaat gtggtcttgt
      <210> 1956
      <211> 202
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (202)
      <223> n = A, T, C or G
      <400> 1956
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ccccagtgte ctccttcttc tccggccaga cccagccccg cgaagatggt ggaccgcgag
caactggtgc agaaagcccg gctggccgag caggcggagc gctacgacga catggccgtg
                                                                        120
                                                                        180
gccatgaaga acqtqacaga qctqaatgag ccactgtcga atgaggaacc gaatccttct
                                                                        202
gtctgtggcc tacaanatcg tt
      <210> 1957
      <211> 218
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1) ... (218)
      \langle 223 \rangle n = A,T,C or G
      <400> 1957
ggcagctcca agtggaatcc acgtgcagct tctagtctgg gaaagtcacc caacctagca
                                                                         60
gttgtcatgt gggtaacctc aggcacctct aagcctgtcc tggaagaagg accagcagcc
                                                                        120
cctccagaac tctgcccagg acagcaggtg cctgctggct ctgggtttgg aagttggggt
                                                                        180
gggtaagggg ngactgngct acnncatann ntttttat
                                                                        218
      <210> 1958
      <211> 300
      <212> DNA
      <213> Homo sapiens
```

```
<400> 1958
qqtatqtgta geggeagtgg eegeeggegg ageagtetga geeegaegat gaggeegggg
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acqqqaqctg agcgtggagg cctcatggtg agtgaaatgg agagccatcc tccctcgcag
                                                                        120
gqtcctgggg acggggagcg gagattgtcc ggctcaagcc tctgctccgg ctcttgggtc
                                                                        180
tetqetgacg getteetgag gagacggeee teggtaaggg ateagtgggg cagggggaag
                                                                       240
gcqqcacatt gaaaaacgga gtgagaaaca ggaagctttc tccgaaagga gaagaagata
                                                                        300
      <210> 1959
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 1959
ccggaacaag gaccaggagg tgaacttcca ggagtatgtc accttcctgg gggccttggc
                                                                        60
tttgatctac aatgaagccc tcaagggctg aaaataaata gggaagatgg agacaccctc
                                                                       120
tgggggtcct ctctgagtca aatccaatgg tgggtaattg tacaataaat tttttttgga
                                                                       180
cagatnnaaa agaaacaaaa cttgctttac agatnctgaa aggcctgnna caaggccngg
                                                                       240
naattngggg antcegteet geattgngca ngatgeteag eggeateeet ggneacceae
                                                                       300
      <210> 1960
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1960
agggggcggg cccgtacqcc gattccatat gggcgccggc gcggagcgcc gcggggcagc
                                                                        60
geggggtege catggetgag etgeageage teegggtgea ggaggeggtg gagteeatgg
                                                                       120
tgaagagtct ggaaagagag aacatccgga agatgcaggg tctcatgttc cggtgcagcg
                                                                       180
ccagetgttg tgaggacage caggeeteca tgaagcaggt gcaccagtge ategageget
                                                                       240
gecatgtgcc tetggetcaa geccaggett tggtcaccag tgagetggag aagttecagg
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      <210> 1961
      <211> 208
      <212> DNA
      <213> Homo sapiens
      <400> 1961
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acaaggactg gcageggege gtggccacgt ggttcaacca gccggcccgg aagatccgca
                                                                       120
gacgtaagge ceggeaagee aaggegegee geategetee gegeeeegeg tegggteeea
                                                                       180
                                                                       208
tccggcccat ttgcgtcatt gccccagt
      <210> 1962
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
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<223> n = A, T, C or G

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                                                                     120
ttccataatt aggagaaaac cgttatgact gcattatcct gcaactctta cccgtaatat
                                                                     180
ataaagaaaa ggaattaagt tgatcaagtg gaattctttt ttttttttaa attntnggna
                                                                     240
nctntnaagn ttttgnannc ccanntngtt nnngcaaatn ntttnccaan cgnntccaaa
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      <210> 1963
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1963
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                                                                     120
gcaatgtett caccactggg ttcagccgca tgagcgagcg gcagctggct ctctggaatc
cgaaaaatat gcaggaacca attgctcttc atgagatgga cactagcaat ggggtgttgc
                                                                     180
tgcctttcta tgaccctgac accagcatca tttacttatg tggaaagggt gacagcagta
                                                                     240
ttcgctattt tgagatcacg gatgaatccc cgtacgtcca ctacctcaac acattcagca
                                                                     300
      <210> 1964
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1964
gagaactagt caataaggaa caggatcaac ggccactcca cccagtggca aatccacatg
                                                                      60
                                                                     120
cagaaatctc caccaaggtt ccagcctcca aagtgaaaga cgccgtggaa cagcaagggg
aggtgaagaa gaataaaaga gaaagaaagg aagaacggca gaagaaaagg aaaagagaaa
                                                                     180
agaaagaact aaagttagaa aaccaccagg aaaactcaag gaatcagaag cctaagaagc
                                                                     240
gcaaaaaggg acaggaggct gaccttgagg ctggtgggga ggaagtccct gaggccaatg
                                                                     300
      <210> 1965
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1965
acaggttccc atagctacag aggtgctttt caaacttaca cagggaagtg tgacctttta
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agatgtggcc gtgtacttct cctgggagga atgggatctc cttgatgagg ctcagaaaca
                                                                     120
cetgtactte gatgtgatge tggagaactt tgcacttacg teeteeetgg gttgttggtg
                                                                     180
tggagtggaa catgaggaaa caccttctga acagagaatt tctggagaaa gagtgccaca
                                                                     240
gttcaggact tccaaagaag gttcatcttc ccagaatgcc gactcctgtg aaatatgttg
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      <210> 1966
      <211> 216
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(216)
      <223> n = A, T, C \text{ or } G
      <400> 1966
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aggggaagaa gaagatgagg aagaagaaga agaggatgat gaagggcccg cgctgatgag
                                                                     120
```

agctgccgaa gaggaggatg aagcggatcc caaacggcan aanacagaan atggggcnt ggngngagcc cctgncaana ggctgncgnt gggagg	c 180 216
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<210> 1968 <211> 300 <212> DNA <213> Homo sapiens	
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<210> 1969 <211> 279 <212> DNA <213> Homo sapiens	
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<210> 1970 <211> 206 <212> DNA <213> Homo sapiens	
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<210> 1971 <211> 300 <212> DNA <213> Homo sapiens	
<400> 1971	

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ccctcctcgg cctcccaaag ttctggggct acaggtgtga gccacttctg cccagcatcc
                                                                       180
caggcctgaa cagccttggc aggacccgtc cctagagggg gctctggtgc ctcccttagg
                                                                       240
tgggccttga gctggttttt aaccaaacat ccttccaaac tctgtctgcg acctgcttcc
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      <210> 1972
      <211> 300
      <212> DNA
      <213> Homo sapiens
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tettatteaa geeatgeace etaetettge tggtaaaate actggeatgt tgttggagat
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tgataattca gaacttcttc atatgctcga gcctctagaa ctatagtgag tcgtattacg
                                                                       180
tagatccaga catgataaga tacattgatg agtttggaca aaccacaact agaatqcaqt
                                                                       240
gaaaaaaatg ctttatttgt gaaatttgtg atgctattgc tttatttgta accattataa
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      <210> 1973
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1973
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tatctatcta tctatctatc tatctactgt attaagcccc ttctcaaaat tgtagtttca
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gaagtatggt ttgataattc ataatcaagt tctttttctt tatgcccaga agtctgtatt
                                                                       180
ctgcacagac ttgcataccc ctagctgcgc taaagttcag aagtttgagc tgccactgaa
                                                                       240
gtattgactg tggagaggcg gggttttctg tctccaatga ggtgcctttg gtgtcgggaa
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      <210> 1974
      <211> 181
      <212> DNA
      <213> Homo sapiens
      <400> 1974
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ccaggagtgg ccccctcca cgagggacct ttccagcaca gggtttgatc tgtgtgtatc
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acaggggaga tgggagccat ggaaggttct tgagcaagat gggggtgggg gtqqqqccca
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                                                                       181
      <210> 1975
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1975
gcagtctcct gagccagagt gtgctcagac agagtccagc tggtggaaag ggacttatgg
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agagaaaaag aaaagcgatg tagaaaaatt gaaaagaggt acagaaacag ctggattqqt
                                                                       120
tacagetegg tgtttgeett attttgaaca gggtttgaac agttggecac etttgqttqe
                                                                      180
tcaaaacttg gtgattggca caagagtagg ttacagtctg tttqcacatc catttaggtt
                                                                      240
gcagttcact gtgtacagag aaacctttag gctgaactta aaacgtgtaa ggagacagct
                                                                      300
      <210> 1976
      <211> 189
      <212> DNA
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<213> Homo sapiens
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      <222> (1)...(189)
      <223> n = A,T,C or G
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gacgtcatgc tcctgtgcca gaacgcacag accttcaacc tggagggctt cctgatctat
                                                                       120
gaagactcca tcgtcttgca gtcggtcttn accagnttgc ggnntaaaat ntagaaggan
                                                                       180
                                                                       189
gatgacagt
      <210> 1977
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1977
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tgtttgctat atctaaacaa ggaagtaatt tggtacaatc aaagcatttg aatccaggca
                                                                       120
gcatttcagt gcagacatct ttgacaaata gctcacaaat agataagcca atgaagatgg
                                                                       180
aqaaaqqqqa aatqtatqqa aattctccaa gatttttagg tgccacaaat ttgactatgt
                                                                       240
attotaagat otcaaactgt cagataaata atotgoatgt gtottatact aacactgatg
                                                                       300
      <210> 1978
      <211> 244
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(244)
      <223> n = A,T,C or G
      <400> 1978
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gggacctgcc cagacaggct gagcctgggc gtggtgggtg gggtgatgnc tctggngagc
                                                                       120
ggctgtcatn ctacaaacnn caccnnntnc tttgagctnt nantatggna cccagtgnct
                                                                       180
tnntntgnan nacanggnga anntgccnnt cgnnnaccnn catncnggga nnnccccntt
                                                                       240
tttq
                                                                       244
      <210> 1979
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1979
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cgcgtcggcc gccatgccgg cgataatggc ctgcttctcg ccgaaacgtt tggtggcggg
                                                                       120
                                                                       180
accagtgacg aaqqcttqaq cqagggcgtg caagcgctca ccgcatcgtg gcacctggca
agggcatect ggetgeaqat gagtecactg ggagcattge caageggetg cagtecattg
                                                                       240
gcaccgagaa caccgaggag aaccggcgct tctaccgcca gctgctgctg acagctgacg
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      <210> 1980
      <211> 187
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<212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(187)
      <223> n = A, T, C or G
      <400> 1980
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acctetttag teggaaattt ggtgaageta ttggtatggg tttteetgtg aaagtteeet
                                                                     120
acaggaaaat cacaattaac cctggctgtg tggnggntga nggntngctn cctgnnctgn
                                                                     180
nngacng
                                                                     187
      <210> 1981
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1981
ctttctctgg cagtgattcc tgaagggaaa atcatgaaca acacctacta ccaggaatgc
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ctcttctacc tgcacaacta tagcaccaac ctggccatca tcagcttcta cgtgaggcac
                                                                    120
agctgcctgc gggaagctct tctgcacctt ctcaacaagg tgggacatgg acacagctca
                                                                    180
aaaaggcagt gcctgcctta ctcctctggc ttggaccact cagccttaag cgggacaata
                                                                    240
300
     <210> 1982
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1982
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                                                                     60
gtcatggtgg ccccagactg tagagatttt tatgtgtttg gatacatctg ctgtgtggaa
                                                                    120
aaaaaaaaac tacaaaaacc ctaattttgt acatactgta tttttactat tgaactgtat
                                                                    180
tctagtggct gttcatgctc caagacttta gttaccgaga catgaatact atccatgtaa
                                                                    240
taagcacttg cctggaataa aatataaaac tgaaataaac ctgcactgaa acctgaaaaa
                                                                    300
     <210> 1983
     <211> 300
     <212> DNA
     <213> Homo sapiens
     <400> 1983
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taactgtcca acatatatag ctgagtaaca aaaatagcaa actagaaaac aatgtattat
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tccatttgtg ctgaaatatg tatgttggta tgtgtaaata tgtatggttg tatagacagt
                                                                    180
tcttttctaa aattttttca tttttaattt ttgtgggtac atactaggta tatatatttg
                                                                    240
tggggtacct gaggtatttt gatacaggca tgcaatgtga aataatcaca tcagcataaa
                                                                    300
     <210> 1984
     <211> 296
     <212> DNA
     <213> Homo sapiens
     <400> 1984
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qcctcatctc ccactgagca ggtgccatcc caggagatgc cactgttggc gagaccttcc
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cetttecetg caggtggtat gggaggtgge atgttetaac teetagaeta gtgetttace
                                                                       180
tttattaatg aactgtgaca ggaagcccaa ggcagtgttc ctcaccaata acttcataga
                                                                       240
                                                                       296
agtcagttgg agaaaatgaa gaaaaaggct ggctgaaaat cactataacc atcaat
      <210> 1985
      <211> 246
      <212> DNA
      <213> Homo sapiens
      <400> 1985
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agcaggctaa caatagccca ccagtggctc aggcatcagt agggcaacag acacagccat
                                                                       180
tgcctccacc tccaccacag cctgcccagc tttcagtcca gcaacaggca gctcagccaa
                                                                       240
cccgctgggt agcacctcgg aaccgtggca gtgggttcgg tcataatggg gtggatggta
                                                                       246
atggag
      <210> 1986
      <211> 175
      <212> DNA
      <213> Homo sapiens
      <400> 1986
ccgtcttcgc caaggccccg cccgagccta gttgttctcc ccctgaatgt gtagaacctt
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cctttgaaat ttcttaatcg qtqcattgag gtttccacat ctttttccaa gcagtgcccc
                                                                       120
                                                                       175
acttcatgga tttatagcta tagtctatgc agtcgttacc tcttttttt ttttt
      <210> 1987
      <211> 208
      <212> DNA
      <213> Homo sapiens
      <400> 1987
agecgatgte cagaaacgag tgttagagaa gaegaageag tteategaea geaaceceaa
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ccagcetett gteateetgg agatggagag eggegeetea gecaaggeee tgaatgaage
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cttgaagete ttcaagatge acteecetea gaettetgee ageetetaga actatagtga
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                                                                       208
gtcgtattac gtagatccag acatgata
      <210> 1988
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1988
cccgacggtg tgtgggcaca cgggacctgt cctggacatc gactggtgtc ctcacaacga
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cgaagtcata gccagcggct cggaggactg cacggtcatg gtgtggcaga tcccagagaa
                                                                       120
cgggctgacc tccccgctga cagagccggt ggtggtactg gaggggcaca ccaagcgagt
                                                                       180
gggcatcatc gcctggcacc ccacggcccg aaacgtgctg ctcagtgcag gctgcgacaa
                                                                       240
cgtggtactc atctggaatg tgggcacagc ggaggagctg taccgcctgg acagcctgca
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      <210> 1989
      <211> 300
      <212> DNA
      <213> Homo sapiens
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<220>
      <221> misc_feature
      <222> (1) ... (300)
      <223> n = A, T, C or G
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tgtnggtaat actcnttgnt catcatgaaa tgcagtgtaa nggttgtgtt cgcctattga
                                                                       120
nnnttnaaac nncangtngt ttangtnaaa gnttancaga tcttaaagat aatcactgtg
                                                                       180
agnnnnttag agtaaaaatt cqaaaactga aaaataaqqc taqtqtacta caaaaqaqac
                                                                       240
tatctgaaaa agaagaaata aaatcgcagt taaagcatgc aacacttgaa ttggaaaaaag
                                                                       300
      <210> 1990
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1990
gtgagccgag ccgagatcgc ggcacggcac tccagcctgg gtgacagagt gagactccgt
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ctcaataaat aaataaataa ataaataaat aaaataaagc aaggtaatga aggtgaatgt
                                                                       120
gcttagtatg tggccagata cagagtaggt gctctgtaat attagttaca gtgattgcct
                                                                       180
gctaggagtg taggctggtg ctaaaacatg acccaggtct agaaagacac acaatccacc
                                                                       240
cctaactcct ttcctcgtct gccactcctt atccccagga ttacttgttc ttttatgact
                                                                       300
      <210> 1991
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1991
gtaagcaatg tgggaaagcc ttcagatctg cctcaatcct tcaaatgcat gctgggactc
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accetgaaga gaageeetae gagtgtaage aatgtgggaa ageetteaga tetgeeecae
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accttcgaat ccatggtaga actcacactg gagagaaacc ctatgagtgt aaggaatgtg
                                                                       180
ggaaagcctt catatctgcc aagaaccttc gaattcatga aaggacacaa acacacgtaa
                                                                       240
gaatgcactc tgtataaaga ccttataaat gtaagatatg tgggaaaggc ttttattctg
                                                                       300
      <210> 1992
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1992
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atcaggggct agtctgaacc cctagcacag aacactcacc tcacggaaga gtggccagaa
                                                                       120
tgttttccac ataggtcctg gtcctcactt ctcctcactg agcagggctg cccaacgtgg
                                                                       180
gacttetgea caaccatect geceetgeet gaccaettea ateagaggea geetggeagt
                                                                       240
taaaggaaca cccacacaca gaggtgaaaa agaaccaatt caagaactcc agcaacacaa
                                                                       300
      <210> 1993
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1993
gccaccacca ccaccagccc cacaaaatgg acctcaaggc ctacgaacag gtgatgcact
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120

accoeggeta eggtteecce atgeetggea gettggeeat gggeeeggte acgaacaaaa

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egggeetgga egectegeee etggeegeag ataceteeta etaceagggg gtgtacteee
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ggcccattat gaactcctct taagaagacg acggcttcag gcccggctaa ctctggcacc
                                                                     240
ccggatcgag gacaagtgag agagcaagtg ggggtcgaga ctttggggag acggtgttgc
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      <210> 1994
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 1994
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gtggtgtgga ctgttgctgt gaccccacaa agtgtcggaa ccgccagcaa ggcaaggata
                                                                     120
gcttgggcac tgttgaacgg acccaggatt ccgaaggctc cttcaaactg gaggatccta
                                                                     180
ccgaggtgac cccaggattg agcttcttta atcccgtctg tgccaccccc aatagcaaga
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teetgaaaga gatgtgegat gtggageagg tgetgteaaa gaagaeteee ceageteeet
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      <210> 1995
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      <212> DNA
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      <400> 1995
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taccaccete etegeceteg gtgteetgga gaaaggegga aggaatgegg acetttttga
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gaatgaaatg gattgacaga ccaaataact aatgagaggc ttgattgaga acctacccga
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ctatcagagg acctgtccgg gaagagaaat ggggctacgt ccagacagaa tctcgctctg
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      <210> 1996
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      <212> DNA
      <213> Homo sapiens
      <400> 1996
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gataatgaac atttccttct gcctcaaggt acaatcagtt tatgatcctg ggagagcaag
                                                                     120
aagcaaggag ccagcaagtc tggacacatt ccagaggcca cgaggggttt tatgtcctga
                                                                     180
gtcctggatt ccatccaagc catgaggggt tttatgccct aggcttaggt tgtagtgcgg
                                                                     240
eggggeagee ttecaccett aageacagaa cetggtgtte cataggeeac aagaagtttt
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      <210> 1997
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      <212> DNA
      <213> Homo sapiens
      <400> 1997
aagggagagg cagtaggact aggagttaaa ttgtcatgcc gaggtctctg agcatgggtg
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ggcctgtcag aattgtcatc gctcactctg ttgacttcca gcagctgaca ggcaaggccc
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taggaagete tteageetee ttteettget agaggtgetg tttteeetgg aaatgtteaa
                                                                    180
gccctgcaaa tcgtttctat agtaacaggt ctctgtcttt tttcttatga tgcagatttt
                                                                    240
tgaaaaggtt tettatetaa atgttettgg gatetatggt etteetaeet gtageteett
                                                                    300
      <210> 1998
      <211> 300
      <212> DNA
      <213> Homo sapiens
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aagttttggc agtgcattta aagacttaca gaaaggagtc tcttcatgta ccaatgcttt
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aaggcagcgt gcattttcac taaaagaacg tgccattagt ggcctggcta actttttggt
                                                                     180
gagtgaagct ttatcaaatg ccttaaaaga tttacagtat gtaaagaagc agatattcac
                                                                     240
aaacacagtt gctaggtttg ctgcagatct tgctgaagag cttgtttttg aaggcatcat
                                                                     300
      <210> 1999
      <211> 290
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(290)
      <223> n = A,T,C or G
      <400> 1999
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120
ccaggagcta agtgcctttt tgtgtgcaac cacttaccct ttctctgaaa aacctgttct
                                                                     180
caggaaggat ctgataaact catttactct caaaaaaaaa aaaaaaaaac ctggnccntt
                                                                     240
naaanntntg gggngeentt tnnegaaann ccaanctnnn taaaaccett
                                                                     290
      <210> 2000
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2000
gcagccaatt gggaagagtg acttctgtga gatggctggc tggtgatagg actaagttct
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cattgttcaa atagagctgt tcaacatcac tgaaaccttt aagaaaagcc ctgagatcag
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ttattcctac aagtttaagt agtagacaga tactatccag ctctaagtct caactgctct
                                                                    180
tttatactgt acttttttt tgagacggag ttttgctctt gtagcccagg ctggagtgca
                                                                    240
atggcaggat ctcagatcac tgcaacctct gcctcctggg ttcaagcgat tttcctgctt
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      <210> 2001
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2001
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gagaggggtt ggacccaggg ctgaggcagg ccccccctc cctcccgcct cagtggatca
                                                                    120
tgcccagggc ggcagcggcg gcggttgcgg gggggaagtg actgggcggt gccggcgccg
                                                                    180
gagacgatgc cgtttccagt tacaacacag ggatcacaac aaacacaacc gccacagaag
                                                                    240
cactatggca ttacttctcc tatcagctta gcagccccca aggagactga ctgcgtactt
                                                                    300
      <210> 2002
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2002
eccegacece gggecacetg ggececeggg ttecgeegge actetegeea ccacegegtg
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ggtctgacaa gatgtaccag gtcccactac cactggatcg ggatgggacc ctggtacggc
                                                                    120
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teegetteae catggtggee etggteaegg tetgetgtee acttgtegee tteetettet
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gcatcetetg gtecetgete ttecaettea aggagacaae ggccacacac tgtggggtge
                                                                   240
ccaattacct gccctcggtg agctcagcca tcggcgggga ggtgccccag cgctacgtgt
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      <210> 2003
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      <212> DNA
      <213> Homo sapiens
      <400> 2003
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gttgaggaca cctaggttca cggtctgagt aacacctcat tacaccgaag cctgggcctg
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tattcccaga gctttgggag gctgaggcga gaggatcact tgagcacagg agttcgagac
                                                                   180
cagcctggac aacatagtga gacccccatc tctaaataaa aatagaccaa cgctaaagcc
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tgtgctccag agcctccagg caattggatc agaagtcgca gctctggtgg gaggaaggcg
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      <210> 2004
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      <212> DNA
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      <400> 2004
ttttttttta gaacgtggtc ttgtctctat cctctggaca ctgcagcgta cgagtaacaa
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caggiettige aggetaaata actiataaac aaaattieet teetgaggag etaggiatte
                                                                   120
cgatgtatct tcaacatagt cctgaagttc atatggcaat cgtccttttg gcttctgaaa
                                                                   180
tgcagaaggc catccagatt teggecaact agaggagtet gaaggaccag acaattqcte
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agaaacagaa ggctgtttag aattttctaa attcattaag ggcaattctg gtacttttct
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      <210> 2005
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      <212> DNA
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      <220>
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cagctgggtg acggtcttcc taacagagta cgcggggccc cttttcatct acctgctctt
                                                                  120
ctactteega gtgcccttea tetatggcca caaatatgae tttacgteea gteggcatae
                                                                  180
agtggtgcac ctcgcctgna tctgncactc attccactac atnaagcacc cggaataaag
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300
     <210> 2006
     <211> 299
     <212> DNA
     <213> Homo sapiens
     <400> 2006
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cagctgggtg acggtcttcc taacagagta cgcggggccc cttttcatct acctgctctt
                                                                  120
ctactteega qtqcccttca tctatqqcca caaatatqac tttacqtcca qtcqqcatac
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agtggtgcac ctcgcctgca tctgtcactc attccactac atcaagcacc cggaataaaq
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299
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<210> 2007
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      <212> DNA
      <213> Homo sapiens
      <400> 2007
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acagaaagat ggtgagaagg aaaaaacgga acgagacaag aatcagagca gtagcaagag
                                                                       120
aaaggtggag cagttctgga ggttttatag ccacatggta cgtcctgggg acctgacagg
                                                                       180
ccacagtgac ttccatctct tcaaagaagg aattaaaccc atgtgggagg atgatgcaaa
                                                                       240
taaaaatggt ggcaagtgga ttattcggct gcggaagggc ttggcctccc gttgctggga
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      <210> 2008
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2008
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eggegaegge tgggtgtege tggeegaget tegegegtgg ategegeaea egeageageg
                                                                       120
gcacatacgg gacteggtga gegeggeetg ggacacgtac gacacggace gegacgggeg
                                                                       180
tgtgggttgg gaggagetge geaacgeeae etatggeeae tacgegeeeg gtgaagaatt
                                                                       240
                                                                       300
teatgacgtg gaggatgeag agacetacaa aaagatgetg getegggaeg ageggegttt
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      <211> 300
      <212> DNA
      <213> Homo sapiens
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                                                                       120
agatgtggta ccaacagggc ttccgaagtc tggaagacat ccgcagccag gcctccctga
                                                                       180
caacccagca ggccatcggc ctgaagcatt acagtgactt cctggaacgt atgcccaggg
                                                                       240
aggaggetae agagattgag cagacagtee agaaageage eeaggeettt aacteeggge
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      <210> 2010
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      <212> DNA
      <213> Homo sapiens
      <400> 2010
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tgcccaagat ccagaggagt gagggcaaga cgcgcatggc catgtacaag aagagcctcc
                                                                       120
acatcaacgg cggggcagc gcagctgagc agcgtgagaa gatcaagcag ttctcccagc
                                                                       180
aggaggagaa gaggcagaag tcggagcggc tgcagcaaca gcagaaacac gagaaccaga
                                                                       240
tgcgatgcgt gctggccccc gcacaggctc ctgtgtgcag ggactgattc ctcagcacac
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      <210> 2011
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      <212> DNA
      <213> Homo sapiens
      <400> 2011
ggccgctgct tctttcccga gcttggaact tcgttatccg cgatgcgttt cctggcagct
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acatteetge teetggeget cageaceget geecatggea teetgatggg egteecagtt
                                                                       120
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ccctttccca ttcctgagcc tgatggttgt aagagtggaa ttaactgccc tatccaaaaa
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gacaagacct atagctacct gaataaacta ccagtgaaaa gcgaatatcc ctctataaaa
                                                                       240
ctggtggtgg agtggcaact tcaggatgac aaaaaccaaa gtctcttctg ctgggaaatc
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      <212> DNA
      <213> Homo sapiens
      <400> 2012
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acatgcatat taccagcagg agaagtgcct gagacccgag gacatcctgc gcttcatgga
                                                                       180
                                                                       240
aacaagattc tttaaacttc tgatggaatc catcaaaaag aagaataata aagcatcagc
tttcaqqaac qtaaacactc qaaqaqctac acagcgggat ctggacaacg ctggggagtt
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      <210> 2013
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      <212> DNA
      <213> Homo sapiens
      <400> 2013
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ggagcggcgg ggcccttgga gagacggggg gcgcaacccg gacgacactc tgtgaccggc
                                                                       120
tacggggact gcgccgtggg cgcccggtac caggacgagc taacagcttt gcttcgcctg
                                                                       180
                                                                       240
acggtgggca ccggtgggcq agaagccgga gcccgcggag aaccctcggg gattgagccg
tegggtetge aggagecace aggteettte gtteeggagg eegeeeggge eeggatgegg
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      <210> 2014
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      <212> DNA
      <213> Homo sapiens
      <400> 2014
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tactaccgct cttacctggg gcggctcatg aaggtgcagt atgaggaagt cgctgagaaa
                                                                       120
gatgatctaa tgggtgtgga agatacagca aagaaaggat tcttctcaaa gccatcgctc
                                                                       180
cgcagcagga acaccatttt caccctagga acccgcggct ctgtcatctc ccccactgaa
                                                                       240
                                                                       300
cttgaggccc ccatcctqqt qcctcacaca gcgcagcgcg gagagcagag gtatccattt
      <210> 2015
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2015
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gageggeggg geeettggag agaegggggg egeaaceegg acgaeactet gtgaeegget
                                                                       120
acggggactg cgccgtgggc gcccggtacc aggacgagct aacagctttg cttcgcctga
                                                                      180
cggtgggcac cggtgggcga gaagccggag cccgcggaga accctcgggg attgagccgt
                                                                      240
                                                                      300
cgggtctgca ggaqccacca ggtcctttcg ttccggaggc cgcccgggcc cggatgcggg
      <210> 2016
      <211> 300
      <212> DNA
      <213> Homo sapiens
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<400> 2016
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gctcttctct gtgcccttta tccgcacttc ccagctcaca gcactgacaa ccggtatcat
ctccaggete teeggeacet etatgtgetg geegeggage ecaggettet agtgeetgtg
                                                                       120
gatgtggaca caaacacgcc ctgctatgcc ctcttagaag ttacctacaa gggcactcag
                                                                       180
                                                                       240
tggtatgaac aaaccataga agaattgatg gctcctaccc ttcttccaga actccatctt
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ttaaagcacg attaaagtaa aaggcccaag atactgggaa ctgctcatag atttaagcaa
      <210> 2017
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2017
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gctttggaga tgagccgtaa ccgtattgcc gaaaacctgg gggatgtcca gataagtgac
                                                                       120
aagatcacca totcaaagaa ottcaaggag aatgtgatto gooctatoot gaaagotcac
                                                                       180
ttccggaggg atgagtttct gggacggatc aatgagatcg tctacttcct ccccttctgc
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                                                                       300
cacteggage teatecaact egteaacaag gaactaaact tetgggeeaa gagageeaag
      <210> 2018
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2018
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ttattacaat getgeecace agtateaatg caatagaage ttatteegga geaaatggga
ttctaaaaaa agtgaagaag ggctcattat taatagattc cagcactatt gatcctgcag
                                                                       180
                                                                       240
tttcaaaaga attggccaaa gaagttgaga aaatgggagc agttttcatg gatgcccctg
tttctgqtqq tqtaqqaqct qcacqatctg ggaacctcac gtttatggtg ggaggagttg
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      <210> 2019
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      <212> DNA
      <213> Homo sapiens
      <400> 2019
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attectttgg atgatattga atttgctaag ggtagaggaa catttccctg tgatatttct
                                                                       120
gtccttgata ttcatcaaga tttagactgg aatcctaaag tttctaccct gaatgtctgg
                                                                       180
                                                                       240
cctctttata tctgtgatga tggtgcggtc atattttata gggataaaac agaagaatta
atggaattga cagatgagca aagaaatgaa ctgatgaaaa aagaaagcag tcgactccag
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      <210> 2020
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2020
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agacctagtt aattgtagga ccaatgaaat catcacagga gccacagtag gagacttctg
                                                                       120
                                                                       180
ggatggattt gaagatgttc caaatcgttt gaaaaatgaa aaagaaccaa tggtgttgaa
                                                                       240
acttaaggac tggccaccag gagaagattt tagagatatg atgccttcca ggtttgatga
totgatggcc aacattccac tgcccgagta cacaaggcga gatggcaaac tgaatttggc
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<210> 2021

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<211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2021
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gtatgaatct ccagaaatag ctctaaattg tggaataatg ttaagagaat gcatcagaca
                                                                        120
tgaaccactt gcaaaaatca ttttgtggtc ggaacagttt tatgatttct tcagatatgt
                                                                        180
cgaaatgtca acatttgaca tagcttcaga tgcatttgcc acattcaagg atttacttac
                                                                        240
aagacataaa ttgctcaggq caqaattttt ggaacagcat tatgatagat ttttcagtga
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      <210> 2022
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2022
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gtcaggatga acataaagct ctcaagttct tgaaaggatg agacacaaga ataagatggg
                                                                       120
gtaccagtga ccagetecte tacctggggt catggaggae cgaagaccet ccaacettga
                                                                       180
tgcctgtaag gacaggcqct cctgtaaggg atcaggtgta aagaatctgg ccatagctcc
                                                                       240
tgtacaaagc ctctttgtct gaagtacttg ggtgctcttt gacggcagga gggaacacaa
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      <210> 2023
      <211> 296
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(296)
      <223> n = A,T,C or G
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ctgaggcagg agaatcactt gagcccagga ggtggaggtt tcagcgagct gagatcacac
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cactgcactc cagccttggt gacagagtga gactctgtct caaaaaaaaa aangggantc
                                                                       120
atttgggnnt tnggcaaaaa tnancntagg gantntnnca ngacccnaga nggaanccnt
                                                                       180
gagngntcag nnccannntg gggncttttt nnnggtttnt taaangnncc gnnccttnan
                                                                       240
ggngggnncc negnttngen ttggggggtn tnagggnang netgetttet ttttta
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      <210> 2024
      <211> 253
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(253)
      <223> n = A, T, C or G
      <400> 2024
cacttgaacc cgggaagtgg aggttgcagt gagccaagag tacaccactg cactccagcc
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tgggcaacag agcgagactc cgtcttaaaa aaaaaaaaa naancccctt ttnanngncn
                                                                       120
taatanneen anttngngge agnnttgnan ngggaaagge egtttaaane nntaanggtn
                                                                       180
gaaaaaccnt naaanattnt ccanccnacc ccttngatnt tncanaccaa aaaannaatc
                                                                       240
ccnaaacggg aaa
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253

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<210> 2025
      <211> 294
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1)...(294)
      <223> n = A, T, C or G
      <400> 2025
gctacttggg aggctgagac aggagaatcg cttgaaccca ggaggccgag gttgcagtga
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tetgagateg tgeacteeag eetgggggae agagtgacae teegteteaa aaaaaaaaaa
                                                                        120
naaaagnncc nntttngggt tnttantttt ttccnaanaa ctgaacntat ttgnacnntt
                                                                        180
nnatttttan aatqnttttt tnqtaannta ancnccaaaa taattaannn cntttaaang
                                                                        240
cctnnannaa tnncctgatt nnntggcnnn anccntttnn taagggggga tttt
                                                                        294
      <210> 2026
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 2026
gctactcgaa aggctaagac tggaggatcg cttgagccaa tgagttggag gctgcagtga
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gctataatca cgccactgca ctccagcctg ggctgcaggg tgaggtcctg tctctggaaa
                                                                        120
aaaaaaaag ggantaggta aanggnncan aggnnaantt ttnagngnct ngagnctttt
                                                                        180
gnagecentg nttaeceaaa nentttnngg cetantngna centencaaa nagnnttten
                                                                        240
                                                                        300
tgnantnacc aaatttnaqq tnttcanaan tngactccnt aagngnncaa ntnggaaata
      <210> 2027
      <211> 293
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(293)
      \langle 223 \rangle n = A,T,C or G
      <400> 2027
ctcagctctt ccqqaqqctq aqqcagqaga atcgcttgaa cccaggaggc agaggttgca
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gtgagccgag gttgcgccac tgcactccag cctgggtgac cgagtaagac tgtctcaaaa
                                                                        120
aaaaaaaaa aaaaaaaan tngcctttng gtnncntnat ttccnaaatt naannaanng
                                                                        180
nccnnttttg gnaaggggg ggnnaaanng naaanccctt tnttngtnng ttcctttnna
                                                                        240
aaagggncnn teneettttn aaanggnent naagneettt ttnanaaatg gtt
                                                                        293
      <210> 2028
      <211> 300
      <212> DNA
      <213> Homo sapiens
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<400> 2028
atctgttact acttcagaat tgctggttga tgttaggccc ctcctatctg tgctctctca
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qctacagttt cccgtttgag catattcatt cttttttatt tttgctctga acaaaaatat
                                                                        120
tagagttaca atattactat attccaggcc ttgctagaaa ctggggataa atctatgaat
                                                                        180
atggtcgctt ccctggaaga cctcacagtc cagggaagcc aaaccctgca gacatgcagt
                                                                        240
                                                                        300
aqacttagtg gtctctctta aggttgcttg ttgagttttg acattggaga ttatgtacag
      <210> 2029
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2029
gtgagaacgg agatacggga aaacccttgg ctcatggaag catagccaac ataaaccttt
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taagcaaacc agcgcagagt teegteatag tgcaccatca teagaaacca gggeteetgg
                                                                        120
tgttccagaa gttgccagag tttatgttac ttcagccact tggtggggaa agcttttgaa
                                                                        180
atagatcata catgcatttg tttttaatca gagtgcgttg gccatgatgg ggttaattta
                                                                        240
tactgagcae atggeaceea tatetggggt ttecetettg gteagggeee ceattggeea
                                                                        300
      <210> 2030
      <211> 297
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(297)
      \langle 223 \rangle n = A,T,C or G
      <400> 2030
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ccacgataga ccagctgtaa ctcattccag cctgtacctt ggatgagggg tagcctccca
                                                                        120
ctgcatccca tcctgaatat cctttgcaac tccccaagag tgcttattta agtgctaata
                                                                        180
cttttaaqaq aactqcqacq attaattgtg gatctccccc tgcccattgc ctgattgagg
                                                                        240
ggcaccacta ctccanccon taaggaaang ggggcanttc annngcccca agaggga
                                                                        297
      <210> 2031
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2031
gegggaatea atetgeactg acaeegegge aggaaetgaa getgeecagg caagtgagga
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accaggagec gteactgagt gtggetggge tacateatag eteateacgg agetacgaet
                                                                       120
ttgggtactg cggacagacc tggataggcc cagcattcgt tctgaagatc acagttcaca
                                                                       180
gaagettttg ettegtaaag ataateeaaa ggaeetgaga eeegetttte etttteeett
                                                                       240
cattcccttg agagtcagcc ataaacggaa tacctgctag gttccaggaa tgagctcacc
                                                                       300
      <210> 2032
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2032
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gctgccatga atcaccgatc tcttatactc ctggatgaat gcagtaaggt ggtcctagat
                                                                       120
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aatatccatg ggtgtccttt aagaataatg atcaacatat tgcagtcctg caaagacctc
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cagtaccata atttqqatct cttcaaqqqa cttqcaqatt atgtggctgc aactttcgac
                                                                       240
atctggaagt tcagaaaagt tctttttatc ctcattttat ttgaaaacct tggctttcga
                                                                       300
      <210> 2033
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2033
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ctaggagata ccgttgattt ctgcagctct tctcagtggt gggaagaagt ctttgggatt
                                                                       120
gttgagcaag gggcagctgg accatccact aaattttttt gttcaagaca cattagagac
                                                                       180
cctcctgtat atctagtaag tcataataaa ggtgcttggg aaagccttaa atttgaagac
                                                                       240
acatggaggc ggtagaaaat taaacttqta agaggagaaa aacatgccat taggtaacgc
                                                                       300
      <210> 2034
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 2034
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agtocacato tgtggtggca aaatgotgac attttcccaa gaggtacaca aggtgggaga
ggcctgctgt agcagaggtg tgtgttagag aaagcagggg cctgatttag tagcagagaa
                                                                       180
ctgggtgaga aaaatggcca gagaaagtga cctgccagct accagtgttt ccgaaaatga
                                                                       240
gggtgggatg ggcccatttg cgtnattccc nacagtcatc cccatagccc tctgaggagg
                                                                       300
      <210> 2035
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2035
aattttgcca tottttatca ggotttotgt gtogaggacg ctacccacat agagtagaag
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ctaaagggaa gggatgtgaa gtgacctcac cctcagcttc tagctcatgg tgtcaagget
                                                                       120
tgtgtgatet tagacacqte tqcctettet qaqeetqttt etteatetqt aaaacaqqqa
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tgggaggttg tggtaaagat tecacagcaa cactgcacac gcatgaagta cctgggccag
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ggatgactcg gcagacctca gtttccctct gcctcctgcc tagagctgtt agcaagcatc
                                                                       300
      <210> 2036
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2036
aatgtetett teaaagacae teagggetga ateageetta ggatgetaag caaateatte
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cgtaggatag gacacagtca catagaagct acagctggga aaggcagaat tcatagtaga
                                                                       120
gagtgctggt ccacctagag gccagcccaa gaggccagag gtggccatcc ccaaaagaga
                                                                       180
gatggagaga gtatttgctt tttttcctca gatgttttcc caaatcccca ggaagcccag
                                                                       240
tatetetgee tttteagtga ageetetgte ttetagagta tgeettteee tteatttgaa
                                                                       300
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<210> 2037
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2037
tottoattoa agttgtaqat qaaaaggcag aatggagtgg attcagagco gtgtgacgtg
                                                                         60
ccqtcagagq cttcctqttc ttcctcctca cttcagcgca aagtgccaga cccaaaaaaac
                                                                        120
aggattteta cetgtetgtg tgtgtegtee ggggetgttt etteatette eeatgtettg
                                                                        180
attttcacca aaaaaggagg ctgttaatac ttgccttctt cacttttaca tagagatatc
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ataaaqatta tqaactaaaq caqcaaaqta cattgccttc caaggagaaa gtgttccttg
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      <210> 2038
      <211> 300
      <212> DNA
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      <400> 2038
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                                                                         60
gtccgttccc tgttctgagc cccagggaac ttagggctga aagtcacccc cgaagcctca
                                                                        120
gaccagatcg ggaggccaca cgcagctcat ggggacagag ggcccagggt gacggtccac
                                                                        180
tcatgagaag tgctatgtga ctccagggag tctgtccctc tccgggctcc aatccccagc
                                                                        240
ccaagetcag atgacecage etqtqtccct ttageggeeg aggagecace acetgttegg
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      <210> 2039
      <211> 196
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(196)
      <223> n = A, T, C or G
      <400> 2039
gecacettet aageaagtga tggeetgget ggtteagtae eetttgeace etgetttaca
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annqaacttn qtncactqtt tnnnaqqtnn atanctqagt nnacacactt ntgcattnga
                                                                       120
taaatggtac tgngattttc tngnaangaa naattnntgt tgnnaggnaa tggcatcana
                                                                       180
ancttgnana anaggt
                                                                       196
      <210> 2040
      <211> 286
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) . . . (286)
      <223> n = A, T, C or G
      <400> 2040
ggaaggcact ggtccgagaa caccggattc actgcgtgct gtcctcactt gttctacaat
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gagtgccaaa tctgctatca gcatggaaat tttngcacct ctngatgann ggatgctngn
                                                                       120
ancenneena nagaegnann enateteaan ageteeetng aatngntttg cetnnnenng
                                                                       180
tncannantn cenetaacag aggaeetgge neacettane ngnnacatte aaatgaetnn
                                                                       240
angacatcan catcacanno thoagttggc acttatctgn gtaact
                                                                       286
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<210> 2041
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2041
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cagggatagg gtaggagatg ccatttggat ctaggagcag agggcagagc ctcagcagga
                                                                       120
agagtgtete titgagaagg agacacagtg gagcaggtgt gtaggtteac agggceaget
                                                                       180
atgggtagag tcgggtgtac atttttagaa gccacaattc ccaaaaatct cctgactata
                                                                       240
acatcagtgc acagagccag tcaaatggag gaggagtggg tccaggcaat tcaggaagaa
                                                                       300
      <210> 2042
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2042
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gctcctctgt gaggggggg agattgcccg ttctcctcga agaatgccgt tacttgaggc
                                                                       120
ccaaaatatt agaagtctta agaactcagg acaagcagca gaaatacatg caacatggtg
                                                                       180
actggaaccc taaggactct gcaatatgaa taattcccta gagaacacca tctcctttga
                                                                       240
agagtacatc cgagtaaagg cacggtctgt cccgcaacac aggatgaagg aatttctgga
                                                                       300
      <210> 2043
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2043
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atactggtat tgaaacttgg ggaaaataac tggagatacc agtgcagcta tttaaagctg
                                                                       120
tagcaagggc tgcaatcttg cggagatttt aaagagaagt tttaaagttt ctaatactga
                                                                       180
tgcctctttt tggtaaatac aagttttata aatcctgccc tgggatcctg attccccatt
                                                                       240
aatcaagatt tgtcagactt caccttctat aattagaaaa cacagttata agaacagtca
                                                                       300
      <210> 2044
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2044
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acaggteete etteccagaa accaaateag attttetaet tgaagcagta ccaageetet
                                                                      120
ggatagaget tegagggaag gattttgggg teatgggttt ttteeaggga ggetegaaaa
                                                                      180
aagctteeet tgeagtttga gtttgaagge tgtageteag tggeagatea ggacacetag
                                                                      240
gaacatttcc aaggaagtag ccatttctct cccagccttg aaccctgatc tctgggttct
                                                                      300
      <210> 2045
      <211> 300
      <212> DNA
     <213> Homo sapiens
      <400> 2045
gcaacctaaa gtaaatctca catcttggca atcgttttta aatatgatcg tcccatcttg
                                                                       60
atgtgctgct cctgctgtgg aaggtatccc tgggttttag gcaagcatat gtgttcttta
```

120

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ctatggetee agateceage atatttgaag teetgagtea acetgetete etagacaage
                                                                     180
agacattaag tatgtogott gggotottaa gtgogttoto otgactttta cocatotttg
                                                                     240
tggcagtaaa tgcatacgtg tcactgtata tgcggactag atacctcagg tcccagcgcc
                                                                     300
      <210> 2046
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2046
ctgatagcga cgcccgttgt attcagcgct ctcccccggc tgcaccttgg aattgccgaa
                                                                      60
gaagettttt ttaaacteca aatgggeegg gttggegetg cagetetggg atteatteat
                                                                     120
                                                                     180
tcatatagct cgtatttatt gagcacctac catatgcctg gaacggtgct agggaaacag
cagtgttaaa caggtgaagt cctgcccgca tgaagtttta cattgtagtt caggacacaa
                                                                     240
                                                                     300
taagcaggtt gcagagcctg aggcctgtga tcagatgtac gagagcttaa cgcgactcca
      <210> 2047
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2047
geggagettg cagtgageag agategeace actgeactee ageetgggtg acagagegag
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actecatete gaaacaaaca caaaaaaaag tatcaaagae agaaagtgga agttacaagg
                                                                     120
ctttttaagg ccttatcttg gaagtcacag caacatttat tttgcattcc attggtcaaa
                                                                     180
ctcaaqtcct aacaqqccta aqqqqqtcaa gtaaaaggtg ggactcacag gaagttccat
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300
      <210> 2048
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2048
aaacgaccac ctttacgaga attctttgtc gatgactttg aagaattatt agaaggtgag
                                                                     60
agaactettt accacacqtt tettecaqat geteetatgg teeegtaaac aatgatattt
                                                                    120
ttttctgcaa ggctatttta ctttttaaga gcagtaatcg tggcatttgc cgcatgatgg
                                                                    180
                                                                    240
gaacccaggt agggaqcggg tgatgttccc aggcagcctt ggtgtcggca ggtctctaaa
cctggttgtt agtcgtcctc tgtgggagtt gattttgttc tgtgacccag gtcaggtctc
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     <210> 2049
      <211> 246
     <212> DNA
     <213> Homo sapiens
     <400> 2049
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                                                                    180
gcagtggcag gcatccattt cccttccccc cattctgtca caggtgccca tctgcctggc
agttcaatcc agggctcatg ttggagactc cagagcccct tccttgctgg tgcctgcctg
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aggcat
                                                                    246
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     <211> 300
     <212> DNA
     <213> Homo sapiens
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ctaagaagaa ttaagaggaa aaggaqqagg ttagagttgg tgcatctgct cctccggtgt
                                                                       180
ctgagtgtga taagaaagat agatgttaga ggtagcagaa ttgtgttgca agaattaaag
                                                                       240
                                                                       300
ccaccagcag atgagacttg gaccetaaac aattccccag gagaaacctg tgaaaaattt
      <210> 2051
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2051
gaaaaggccc cagaatgggc tggcttgaac tggaaaaaca cactttctca tcccttttgg
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accacgaget tettqaqaqe aaaqeatqtq tttqatatte etttgeteac cetcaggeet
                                                                       120
tgtttggcaa attgcctggg atacagaaaa taaggacaag gtctgggtgt agtggcttat
                                                                       180
gcctgtaatc ccagcacttt gggtgaccaa ggcaggagga tctcttgagg ccaggagttg
                                                                       240
cagaccagcc tgggtaacat agtgagacct tgtctctgca acaaaattta aaaattagcc
                                                                       300
      <210> 2052
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2052
ctacgatgac cccctcttca ggctgccatt tggtagaggg caagggagtg gctagccatc
                                                                        60
gagtaagacc atgetttgca cecaccatca geaaggetca agatagtgce tgegteetca
                                                                       120
gaataageet teeettetge aggtatetea teteeatetg tgggaaceag gtatgagget
                                                                       180
ctgaacagtt cctgctctgg caagacacct ccacatcttt ctccctcaaa cattcatagc
                                                                       240
ctctctgcca ttttatgctt ctggtacacc agaaataata tcacaatgcc ctgcatcact
                                                                       300
      <210> 2053
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2053
gggaaggtet ggetecaget tgageceaet caeaggatgt cagggggaag tgtgaetaag
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gtcacggcca cgccacgtgg tgggccagct ggatccagag caggggccgt tgtggccaca
                                                                       120
catcetgagt ttecatggte taatgeaqtg ggettgaaaa aaaagggtgg atgeaggatg
                                                                       180
ctggctggga ctgtggagtg cgtgggcagt aagtettaag tgacagtggg tggagattac
                                                                       240
agcatttcat ctgcttttcc tttgacacct tttaaagata caacccacag ttttcaaggg
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      <210> 2054
      <211> 293
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
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      <223> n = A, T, C or G
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aagtcagaat tacagaagct tgtccctaag aatgacagcg cttctttgcc aaaagtgaca
                                                                       120
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```
cctgagaccc cttgtgaaaa tqaqtttgct gaaggcagtg ccttgcttcc aggcagcgag
                                                                       180
gctggcgttt ctgtgcagca gggggctgca ngtnttnctn ttggttgctg natnagttgt
                                                                       240
tngtntnttc atnnttttan ttctanatta gctttttntc ttgntntagt gtt
                                                                       293
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2055
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qttggtatga aacqttcaqa acaactqatg gactatcatc gcaatatggg ctatctcaac
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tcatcaccat tgtcaaqacq gqccaqatcc actcttggcc aatatagccc attaagagct
                                                                       180
tccaggacat ccagtgctac gagtggtctc agttgtagga gtgagcgatc agcggttgac
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ccctccagtg gccaccctcg aagaagacct aaacccccta atgtccgtac agcttggtta
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      <213> Homo sapiens
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cacaccagag tgggatcctc tattgcatgt actegactag cttttcattc ttatcacact
                                                                       120
tecettecta taaagttacg tatettttaa agggaaattt aatacceaec ttegetttet
                                                                       180
gtgcggcctt gtgaaaatca ggcaataaca aggacagcct tattgccagt gtatgaccag
                                                                       240
                                                                       300
agcatctaga tggcactact agtggaatgt catcttgtct accattcatt cattcattca
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      <212> DNA
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      <400> 2057
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aacatatggc ctttggctct tcccacttcc aagagtcttg gaagggatgg gtcgagcaag
                                                                       120
cagaggaaag gaagatgtga gttcccaaaaa tgctcctcac ctttttcttc tgagtgggct
                                                                       180
cetteteact ggeattggag ggettgegge geageatggt cetecaceet gggagaetee
                                                                       240
                                                                       300
gtccctgctc tcctaggtgt caagatgcag aggcctcttg cttagcctca ccagaactgc
      <210> 2058
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2058
acaagaggag gcttatcggg aggaacagct gattaaccgg ctgatgcggc agtcccagca
                                                                        60
                                                                       120
ggagcgcagg attgccgtgc agctcatgca tgttcggcat gaaaaggaag ttttatggca
aaacagaatt ttcagagaaa aacaacatga ggaaagacga cttaaagatt tccaggatgc
                                                                       180
                                                                       240
tottgatoga gaagoggott tggcaaaaca agocaagatt gactttgaag aacaattoot
                                                                       300
taaagaaaag aqatttcatq atcaqattqc tqtqqaaaqa qctcaaqctc gttatgaaaa
      <210> 2059
      <211> 296
      <212> DNA
      <213> Homo sapiens
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<220>
      <221> misc_feature
      <222> (1)...(296)
      <223> n = A, T, C or G
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gacaccaact acagetttea ggtteaatgt ggettaattg tggtggeeta caaagatgga
                                                                       120
teacetgeec acceacattt catggatgea gagetetgtt cecagtactg gaccaagtgg
                                                                       180
cttcttcgac tagaagaata tacggaaaag annangaacc agaatattca gaaaccagaa
                                                                       240
tattcagaat ngggancaag ttgctatttg ggaacattca gcaccttctc acaqtt
                                                                       296
      <210> 2060
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2060
aagggaagga ggctgctggg tagcaaataa gccccttctt ttcttggtga gttgatgacc
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tccaatagct cccagtgtca tgggtaccca gtacgcatta gctggtgttg ggttgattga
                                                                       120
gacctggggc agttcctggg gcaagaagcc agatgggaga tgagatagaa agtgttagga
                                                                       180
gttatcctct ttgcctggcc tttgagaata acttactgtg tgactttggg caaqttcctt
                                                                       240
ccccactctg ggcctcagtt tctcacttgg gaaagcaagg agtttgacca gatgatcaca
                                                                       300
      <210> 2061
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2061
agtgactact tagaagatgc tgtccccacc ttcgccccct ccctctagtt gcccaaatgt
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ettacetece ecagetteae tegggetagt ggaggtette ttagaettet tteaaggegg
                                                                       120
aggatttaga gtctggggtg aagtggcggt gatggatggc tggggacgtg gggctgctga
                                                                       180
ctcaatggtg atacatcaag cagttaatta agggacaagt tatcttctaa gtqqqaqqta
                                                                       240
aaggatttte tggteetttg ttettaatge teatattaat geeattttee eteatggaga
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      <210> 2062
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      <212> DNA
      <213> Homo sapiens
      <400> 2062
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gcacacaatg gaagtcacag gaaacagtat ctcagtcacc aaacqctqtq tcccactqqa
                                                                       120
agagtgetta tecaetgget geagagaete egageatgaa ggeeacaagg tetgeaette
                                                                       180
ttgttgtgaa ggatatatet gtaaettgee aetgeeeega aatgaaaetg atgeeaeatt
                                                                       240
tgccacgacg tcacctataa atcagactaa tgggcaccca cgctgtattg tcagtgatag
                                                                       300
      <210> 2063
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      <212> DNA
      <213> Homo sapiens
      <400> 2063
getgegegge ggggatgtgt ggetggaeag etgeeggttt getgaeaatg geattggeet
                                                                        60
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120

gaccetggcc agtggtggaa cettecegta tgacgacggc tecaagcaaq aqataaaqaa

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180
caqcttqttt gttggcgaga gtqgcaacgt ggggacggaa atgatggaca ataggatctg
gggccctggc ggcttggacc atagcggaag gaccctccct ataggccaga attttccaat
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                                                                        300
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      <210> 2064
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2064
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                                                                        120
ccgaggtgtg aggagggaat ctgcaattcc ttgctacaca gagcgctggc aacttctgac
aggetgttte tggggtatgg getgeetegg gttgttgetg ttacaaggaa agaaaagagt
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toccotgoco acogoctoco agocactggg ctacotoctg gcaggaaatt tgcaaactga
                                                                       240
                                                                       300
gtttaacaag ttaggatcag cagagggtag aggagggccc tggcagatgt ggggtctaga
      <210> 2065
      <211> 300
      <212> DNA
      <213> Homo sapiens
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cogtgocteq etttecetqt coccequet atggacacce etggeteagg ceagtgtget
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tgtcccagca tcgcgctcat ctcctgtttt tatttgatgt tacagatttc atttcattag
                                                                       120
                                                                       180
gaatgagtgt ttcctccccq acttttgcct gcattctttt ccagctcctc cctggaaaag
ggcaggggcg gacactttcc cagcctccca ccgtgctctg ttcctagtgg cacctgcccc
                                                                       240
                                                                       300
agggtetggg cecetaggga tgegteetet accetggaga etgggatett ettaaateee
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2066
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gcagggaaaa cctggcgctg caaaatgtgc aggctcgaat acggatggtc ctcgcctatc
                                                                       120
tgtttgetca gttgagecte tggteteggg gtgteeaegg tgggeteete gtgetgggat
                                                                       180
ecgecaacgt ggatgagagt etectggget acetgaceaa gtacgactge tecagtgegg
                                                                       240
acatcaacco cataggoggg atcagcaaga oggacotcag ggoottogto cagttotgoa
                                                                       300
      <210> 2067
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      <212> DNA
      <213> Homo sapiens'
      <400> 2067
acattaggta tgtagccctg acatcactgc ttcgactggt gcagtctgat cacagtgctg
                                                                        60
tgcagcggca tcggcccact gtggtggaat gtctacggga aactgatgcc tccctcagcc
                                                                       120
ggagageeet ggaactaage etggetetgg taaatagete caatgtgega gecatgatge
                                                                       180
aagagetgea ggeetttetg gagteetgee eteetgaeet aegggetgae tgtgeeteag
                                                                       240
gcatcctgct ggctgcagag aggtttgctc caaccaaacg ctggcacata gacaccatcc
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      <210> 2068
      <211> 300
      <212> DNA
      <213> Homo sapiens
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                                                                       120
ttatttcctg gattggtaaa tataacccca tgataaaagt ggctctgagt gttgggttta
                                                                       180
cctcttggac ttcctgtcct caccaatttt tgaccgaaaa ttcaacccta tgttgttagc
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tetttgaatt acctattetg teetcattag aagagtgeet ceageattta ttgeetaaac
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      <210> 2069
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      <212> DNA
      <213> Homo sapiens
      <400> 2069
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gagccgggcc tggacccctg agccaaggaa actgtgagat aacaaatgtg tgttgtaagc
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agctgactgt taacggaaat tttctaggca gccataggta accagtacac catgctaggt
                                                                       180
cagattaaat gtcctcagat tagcatccct tccattccct ggttcctgaa tgtggccatg
                                                                       240
atttttaatg catgaaagag ccatggcagg gagattatct gtaggtcaat aaaatcatac
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      <210> 2070
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      <212> DNA
      <213> Homo sapiens
      <400> 2070
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tatcaaaagc totacgtatg aattgggcct taatgtcttt gtactcattt attctttat
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tgaaaaaaag ctctaaatgc ctattttgtg tcacataatt gagatttgct ttgaaatgtc
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tgattcttta ctatagtact atctgagttg ttcacagtgg tatggtgatc catactctga
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actgttccat tatctggaat taaaggcata taataaaaag aaatagactg tatttagttt
                                                                       300
      <210> 2071
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      <212> DNA
      <213> Homo sapiens
      <400> 2071
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aattttcaat gaccatggca caaatttatt taaagctgaa atacttcact tctattaaag
                                                                       120
cagttggctg ggtatattgt ttttgctgaa attattactc taggaggtaa atctaggctt
                                                                       180
tatttactac tttgggaaag tacatttaaa ggccatgaat cagaaactag gttacaaacg
                                                                       240
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      <212> DNA
      <213> Homo sapiens
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ggcaatgate etgggetgee etaacataat tgaaaattat gtgtattgta ggettggagt
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gctgaaatgt gggctcataa aaatatgtgg tgcaggtagc ctatggagat tggatgtggc
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acacaatgaa getttatgta aagtaagaac tataagtete catgttaata ttgtattatg
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<210> 2073

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      <213> Homo sapiens
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cctcatttgg ggaagtgcag tagtcgaagt tctttatttt gaaaatggag aacaaccctt
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ctcacaatcc tgtctcccct tccccctttc caactagaat atcagctccc ctgaacatga
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gtcagtcaca tttcagggaa aactggctga tgttgaagaa atcacttgag ggcaaacttt
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      <212> DNA
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      <400> 2074
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tcaggaatca cagttagatt tcttagaatc cttctttgtg ctccaagtat caaagacctt
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atggggctcc ccagccataa tggaaaaagt aatttcttta acaggggaga caccagagca
                                                                       180
agageggaga tgggggtaeg agggggteet catttatgea getggeeaga geteeteate
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caaccogggg cttagtgagg tgacagatgt gatgttggcc aatgtagtct tecttttett
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2075
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ggattatgtg atttactggg gtcagaatag tcaggtattt ttatagtagg cagttttact
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atatgctatg tggacaaatt gaaaatgaag gactgagttt tttttttccc ttaaatctaa
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ttggagatac aatacatgaa cctacaaggg aacatttact cagcagcata ttaattagtg
                                                                       240
ccaatttaaa tatttgatga ttgctaggta gcaaagaatt ctctagatcc tgaagaattt
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eteteteagt tgttteaget tetttggett etgeeteeet gttggaeact aaceggagge
                                                                       180
acactgcagc tgtgccaggt cctggaggga tttggtcagt tttccatgct ggagtcatcg
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gccgtggctt aaagccaccc aagtttgtcc agtcacgaaa tcagcaggaa gtgatctata
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      <212> DNA
      <213> Homo sapiens
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gcatggataa agcctcccca ttcccccgtg cccccacca ctttgtgtcc tttcactttg
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etteacttat gtgeecacca etceagget eectgaggte caggaattee atgeeattee
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240
ctttcacatg gctgagagcc ccagccctgt ggatgagctg tcctgagtgg gcactcagta
atgtgggcgt aactgaacca agctgaagag ggaaggagca aaaaacaacc agaagccctc
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      <212> DNA
      <213> Homo sapiens
      <400> 2078
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tccaaattca catggagaca tcatttttac acacttgtaa tcaattgtag gcggagtctg
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gggtcctagc acttccccta acatcatctc atgatactta gacttttaaa gaacccttga
                                                                       180
gtaggccctg tgataaagga tgttagtgaa aaaaataatg agaaacaggg acttggctta
                                                                       240
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      <212> DNA
      <213> Homo sapiens
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cgtcctccct ccaccatcac agttgccctc tgcacgggag cgcaggagga acaaatggaa
                                                                       180
aggactagac attgatagca gtcgtcctaa tgtagcacca gatggtctct ctctaaaatc
                                                                       240
tatatccagt gtaaatgttg atgagcttag agtgagaaat gaggaacgaa tgcgaagact
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      <210> 2080
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      <400> 2080
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gatacctatc tatatagata gatgctctgg gatctgacgg tcctggacac ctgtatggct
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gtgtgctgtg gtctttgcct agcctgcggt tcacttttgc tctggccacc acctcccctc
                                                                       240
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      <210> 2081
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      <212> DNA
      <213> Homo sapiens
      <400> 2081
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gaaaactgac tttctcttat ttctgttttc tgctgctgct aatctcctcc tgaagggttg
                                                                       180
tgtggcttct tgggactctg gaaagaaact gcaggggacg aggacaaagg aaacagctac
                                                                       240
tgtagteact geagetatge aggetetgtg etagecetgg aaaggeetgg aegtteaggt
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      <212> DNA
      <213> Homo sapiens
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472

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aagtgacagg actttcattg ttcttggctg aggagaagcg ggagtggctg atggaagcac
                                                                       180
                                                                       240
ctaaatgatg cotttgtotg tggqaaggca aatgatgccc cagagctota accaaaggtt
ttgcagccgc cgaaaaacag gaaagttggg aagcgggggt aggactacac tgaatcatta
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      <212> DNA
      <213> Homo sapiens
      <400> 2083
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ccttctcatt gagagaga aagatgccca gagttaaaat aggaggtgct tgggtatttt
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                                                                       180
gttgaacttc acaagttaaa ctggcgaatg gcgtccatca gctgttattc agtccttgaa
cagagcagat atgtttgtgc gaggacaaag aagatgcctc aaagacaaag aagaagatgc
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ctcgtcgtcc cctgagctcc cacacggcat ctgcacatca ccagctcagc atttagcaca
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      <212> DNA
      <213> Homo sapiens
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tgagccacca tgcctcacct agggtgtttg gtttttaagt gaaacatgca catggtaaac
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attaaaaccg tctaaaaggc tggaccatga aaagcaaggc tcccttctcc cacccaatcc
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ctgaattctc cctggagagt atccctccta agtgcacgca cttccactct gttccatttc
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      <210> 2085
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      <212> DNA
      <213> Homo sapiens
      <400> 2085
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aaggaaccct aggaaaggag gcaggagacc taccctctga tttcagtagt agaacactga
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tttgctctgt gatccttgaa taactctggt cctcaatttc cattaccctg actggtattt
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taactgtaat aattcttcca tgaatctgga agtcctttct ttctttaaga aacagggtct
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tgctctgtca tccaggctgg agtacaatgg cgtgatcaca gctcactgca gcctcaaatt
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     <210> 2086
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     <212> DNA
     <213> Homo sapiens
     <400> 2086
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tgggacttga ctaccttgtg gattgtacta gaaatgtcag gtatggtgac tgctctgccc
                                                                      180
accactctaa atgaaactgt cccccacag tctctgttgc ccaggtgtcc tatgtccctc
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gtcacagctg aatggaccaa ggcagatgtg ctatcaagga cagccaatca caagtgagca
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<210> 2087

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<211> 300
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      <213> Homo sapiens
      <400> 2087
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                                                                       120
cagatgagga aactgaggct gagagatgtt cagtaagttg cacaaagtca tacaagtggg
                                                                       180
ggcagagttg ggattcagat cttgccattg tgcagaaggg gtgaacaggt gggttctaga
                                                                       240
gtccttaaaa ggtattgaag ggttttgaag caaggggacg aaatccttgg accaacattc
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      <210> 2088
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      <212> DNA
      <213> Homo sapiens
      <400> 2088
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gccagtttga tcattccaaa gatggttggt taggccccgg ccctatgcca gctgtacaca
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aagcggcaaa tggacactca agaaccaaga tgatatcaac ctccatcaag acagctcgga
                                                                       180
aaagtaaaag ggcatcaggg ctgaggataa atgattatga taaccagtgt gatgttgttt
                                                                       240
atatcagtca accagtatta aaggeetgee tgatatacaa ceetegaatg caacacagtg
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      <210> 2089
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      <212> DNA
      <213> Homo sapiens
      <400> 2089
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aaaaaaaaga aagaaagaaa attacctgga attcaatatt gccatcggct gatttaattt
                                                                       120
ctaatatgaa gaaaggggca gtgtgatgtg ccatggagca tccacaacct gccatttcag
                                                                       180
cccagccaac cttagaaaagc cattgaaaag agttgttttt aatggtgttt ttacatccag
                                                                       240
cttcccacac ctcaaatact tggggtggaa ttgttaatct cacattgcag tacaatgaaa
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      <212> DNA
      <213> Homo sapiens
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gattgtgagc accatgacat tagggatcat atcttttcat tgtactgtta gctacacata
                                                                       120
acagactgca tgctatacgt tggtaaatgt taattaaatg aatatcttct caggctagct
                                                                       180
tttttgateg ecceaacgee ttggetagtt tteteteate etgeeteaga ttgetqtqqt
                                                                       240
gatgcgtccc gctagcacct gcagagacag ccctgttggt aatgttggcc acagtgccaq
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      <210> 2091
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2091
cagaacccaa gagcaaaagc agccttcact tactgtccca tgaaacaaaa attggatctt
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ttctaagcaa cagaacttta gatggcaaag acaaagctgg cctttgtcca gatgaagatg
                                                                       120
atatggaagg agattette tttgatgate ceatteetaa gecagagaaa aettaeggtt
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tgaggaagga acctaggaag caagcaggaa gtctggcctc gctctcggat gcaccccct
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taaaaagtgg actcagctcc ctggcgggag ccccttcttt aaaagactct gagagtaaaa
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      <210> 2092
      <211> 279
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(279)
      <223> n = A, T, C or G
      <400> 2092
gttagactga agaagattaa agaqqaaaqc aqaqactggt taggttatta tagtgtccta
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ggtaacagtt ttggacactt gtgnntnatg tcgnngtgnt atcttcannc actgggccgg
                                                                       120
agctgcagcc ctggangagg gggcgggtcg aggctgtgtg gngattgggg tctccgcccc
                                                                       180
cacgccctnc conggoangg notggagotg gnongangcc aantgccttt nagtonnttn
                                                                       240
tgcnaancce tctngggtcc ngacgctntn cnnttggcc
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      <210> 2093
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1)...(300)
      <223> n = A, T, C or G
      <400> 2093
cccatgtcca gcttggtccc gcatatgtgg gagtgtgtgt ccgtccaggc ctgtgcctcg
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gcccacagca actgcttcgt gtgctggaga cgcccagacc gacaggcgaa tggttcgagt
gcacctcgat ccgagtctca gcacctagac taattaggat gacctcagag atgctgaaga
                                                                       180
gtacctttgg tcagcctcag tctttttgtt tttggttttt tttgagactg tgtctcactc
                                                                       240
cgtcacccag gctggagagc agtggtgcga tctcagctca ctgcagcctc ancctctcag
                                                                       300
      <210> 2094
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2094
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agtgaatggt agaqeateet cactettete tetgecagea ageacetttg gggaagteet
                                                                       120
cacggacagg aatgtcgtgt gtcttggctt gagatgtcaa agaaacatgt tggacacacc
                                                                       180
                                                                       240
atggtgacag agcaggagto tottaaccoo ggogtggttg aggotgoogt totggtggga
tctggggtca gtcaggggtt aacagtcgct cctgcttgcc tgattgacac agtaataaag
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      <210> 2095
      <211> 221
      <212> DNA
     <213> Homo sapiens
     <220>
      <221> misc feature
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<222> (1)...(221)
      <223> n = A, T, C or G
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                                                                        120
tageceetge cacceaetge tgeagaceea eccaetetea gettagetea aaggetgtte
                                                                        180
tctaactcat ttctgagaat aattgnangg ctgnagtngc a
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      <210> 2096
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2096
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ctagagaatc ccategggtg agcccaggaa cccacaagtt ctgcacccct cggatgggta
                                                                       180
ggcattttga gggcatgagg taggcgttac agtgataaga tacacagggc tctaaaccac
                                                                       240
agaggeeeeg gtteaaatee tgeetettet aagtacaaat tagttggett tgggaagtga
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      <212> DNA
      <213> Homo sapiens
      <400> 2097
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tctggtgttc aacaaacact acttgtggtt gaaaaagtgc tggatttgga aaccagagaa
                                                                       180
cccctagctg ggtgaccttg agaacaagga gatgatagtc ctcattcctt gcaaggtgta
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      <212> DNA
      <213> Homo sapiens
      <400> 2098
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agttaaaagg gaatacgctg tcccaagatt ctagaatgaa gagtcaacgt agcccgagtg
                                                                       180
gettaaacet eetgteetta aatgeaagaa atgtttteta tegageeetg gacaggtgte
                                                                       240
tetgetggee tggggtttte aacaggteat geetgeetea gaceecaggg acaaatgtte
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      <212> DNA
      <213> Homo sapiens
      <400> 2099
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gcttcaactt ctgcttccac aagtcatctt tttgttcact ctctgtaaaa taatcaactc
                                                                       180
acgccctcaa gtttctgctg tggagttgag gtgacaatat ttcaacagaa ttgatgccat
                                                                       240
atggaaaatc ccaagctagc ttttgtacaa gtacaaaatc aaatattcaa aacagatgag
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      <212> DNA
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      <400> 2100
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atttaaaagg acatttaaat tactcattag tcagggccag tgttaaccac tacccatttg
                                                                       120
gccagtgtcc tctaaatatt atcatttatt gtgttattgc agctggggag ggagaaaatg
                                                                       180
acagcatece aggggtaaga tttaatettg aatteateag gaaaatgace eetgaacate
                                                                       240
cccgagtcta gccctcattt gagaactagt cctgctaatt atataccttc cccgtaaagt
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      <212> DNA
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cattetettg tgetgeetge cattggagea ttgtatteag tggcetecea cagagagtat
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caaaactaac ccagtatgtg gagacctatg tcagtctatt tatttttcta tctctgtggg
                                                                       180
gctggagaag gaaataaaca taaaactaaa gatttaaaga ttacttttga tttcacttag
                                                                       240
                                                                       300
titttttata acatccttqt qttatqqqta gtttcagaat ctcaagaatg agcagagaat
      <210> 2102
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      <212> DNA
     <213> Homo sapiens
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                                                                       120
ageotectea tagaaaattt aageageeet etetaggaca teaccagtte atttecaace
tcagctgcca gcagggagta ctcctacact gtgtaacttc agcctctcgc cgttctgttt
                                                                       180
                                                                       240
qaqqaaactt cctccctca gggacccaca cttggggttc ctcgagtgtg tagtccagag
ggtcccagcc tttatcagga gccttgcctg taagagaagc cttgcctatt gccccctatg
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     <210> 2103
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      <400> 2103
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                                                                       180
ttqcctcqqa qtqqccttat ttttctcqca acttgtgaaa tgatgtagtg ctctatgtaa
tatggccgag tttccaagct gtcatccaat ggaagtagaa tcttctcttt gaatcatatg
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                                                                       300
gtacaggtgc caatatgact gctgctattt agagtcagag aggtggaagt cactgggtcc
     <210> 2104
      <211> 300
     <212> DNA
     <213> Homo sapiens
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120

aaatttette aggattatga tattegaact ggcaacacca gggaagettt gagteettgt

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ccaagtactg taagtaccaa gtctcagcca ggcagcagtg cttcttctag ttctggagtt
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aaaatgacca gctttgctga acaaaaattc aggaaactga atcataccga tqqaaaaagt
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agtggaagca gttctcaaaa aactacacca gaaggctctg aacttaatat tcctcatgtg
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      <210> 2105
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2105
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tgaagcagge gaagcagatg gteggaggee agcaactace tgeacttgee gecaagagtg
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agggaaggag ctgctgtgtt ttggaatgtg aaagacaaaa ctatgaagca tgtgatgaaa
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cgctgactca tgcaggttga ggttttgtct cattcccagg aatgcttgga ctcccagagg
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cagtgaagcc acacatttta gcagaattac ctcagcagtg tggtgcatga tcatqaactt
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cgcatgaacc ctctaggctg ttgatqaqaq aqtctqaqca cttcccaqqt ttttctqcat
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aatqtqqqaa qqqacccaqq tqqqccttgc cactttggga ttgctgtccc tgaagaaatc
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ccttagcctg atagaaacgt aattgttggg agcaatgaac tgtgttgggg gagaaaacat
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qtqqqqatqq tgatqaaaqq qqqaatattg ggagaggatc acgtttggag ggagactaag
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gcaccatcag tattctagag attagagggc tgtgagagaa ttgtgatagg agggatttac
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gccctggtga ccttagcttg ctattcaatt gagccaaatc tgtattttct gaaggcagaa
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gatgaaagca aatgatagat gcttagattt gaggaggtta tttggtgctg ttgatatttt
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tggcactgct cctacttgag aaccactggc tcctgtaact gcttggccta gttctaactt
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ctaaaatgtt ctcctttcct gagagtataa tgaagagcca gatactttgt gatctttcta
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teatteetet ggettettgg aetteettaa tgattgaget cagatgetgg agteacateg
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aagaaagaag ccaaaaaact ttccgtctac cactgcgcct cctcatgccc accccatcct
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attagcctaa aatqqaacqq qctaattaqt ttatttqtat agggaggggt ttcagctgcc
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tggacaaaac caggagtcca ctgtccaagc ttcttctgtt ttcctgagct cagaagaaaa
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cagaggetet tettgtgace ggggeaggat gtgtettetg etggacegge acettttgtt
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aagaggagat ggtggagacg gaggctcagc agtggtcttg aggggtaaag gacttagatg
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agetgteaca cacataggea ggtgtgttge ataceteagg catgegttea ggagttgtaa
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agetttgaca tgeccgtgag gacaggagee geegetteag ttgtcactge agagecateg
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                                                                       180
gageeggget tgtgtttete geaeagtete ageeatetgt eagetgette aaagggeatt
caaaaqtcca qqttttqatt qtttcttqqa ttagtctgag tcgtgtggcc tgccttatcc
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gcagcttatc tcggttgcta ccagtggtga atcctatgtc cctgatttct ttagactgga
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gcagctgcaa caggagttta actttgtttc agatcaagaa ttaaatagat ccaaacgatt
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taggettett catettagaa gecaagaggt gecagaatte egaaattata ageaagttee
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tggtgatgct cttgcattta gtcataattt ggaagatggc aggctgaccc aaatgagcat
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ttcatcactc tgcttaattt acttagagtg atttgtgaat cctgtccttg tacacaggcg
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                                                                       240
gcaggtgctc tgtgggaggg tggctgtctc cactgacaac ccagggaggt cagcaaggag
gagecetgag gtggactega aagetgtggg agetgatgge ceteetggte tetgccacag
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cettggtgaa ttetttteee tgaggggcaa gateeatgee acacagetet etgaceetgt
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gtgtcacaac ccttatggtc catgagcaaa atggttgcta gtagtcattt gggcatttct
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aatgtgggaa gggacccagg tgggccttgc cactttggga ttgctgtccc tgaagaaatc
                                                                     180
ccttagcctg atagaaacgt aattgttggg agcaatgaac tgngntgggg gagaaaacat
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nacttgggct ttcntaagct gnactggctc accgtgctga ggt
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aatotgacco tttgtccctc tccttttcat ctctcttttg tacaggcctt ctttccttct
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gtgcaaacag accettgtca tagtcatagt ccatcacget gttaaatgat ttccagcact
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gctctatgat gtgctgtaat ttcagggagt agttttattt tctacaacat gttgctctgt
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agcacgtgta tttcactact gagtggtagt tctaatggac atattcttaa caaaatagtc
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tgtcataatt cataaggtca agagcaacat ctggatgaat gagccacctg aaatgtqtqt
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gggctgagcc acaggaaggg tgagtcctct tgcttgtggt gctttatggt gtgcaqqttq
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2127
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ccacgataga ccagctgtag ctcattccag cctgtacctt ggatgagggg tagcctccca
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ctgcatccca tcctgaatat cctttgcaac tccccaagag tgcttattta agtgttaata
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ggcaccacta ctccagccca gaaggaaagg ggggcagctc agtggcccca agagggagct
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aaattaggta atgtttaaaa gtggctttgt attttgtaca ttttgcaacaa tgtgtgtatt
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aacctctcct aattccatct actggcaaag cttgatttga tgagaattgg gtcccctgca
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gtaatgtqac tctqaaqctq acqqattaqa qaqcttqtqq ttcaqqcatq aaccttqtct
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tacagaatcc aggctcaatg ataatgtttt tgccactccc agccccatca tccagcagtt
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ggaaaaaagt gatgccgaat ataccaactc tcctttggta cctacattct gtactcctgg
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gggagagtag aagggtggtc cagggtcaga cagggagtta gatttaatcc ttcagggcac
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tttcattaca tcatagctgc cattttgtct tttatctgac tcaataataa gtcagtaata
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gaccaaaatg aaaacacatg aaataagata agcagagatg aaaggtggca ctagaactgt
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aagaagcatt tgaacaggca qaacagtqct ggagacttta ggagagggct caagctgcca
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tatgaaagca qcaaaqataq ataqtctcaq aaqaaqaaga aatgtataaa ttttqqqqaq
                                                                       180
atgctgtgat aaatagacta gacttacctt tgagttccta gcgataccta cctgacagct
                                                                       240
tccagctgga aaatctgctt ggcaaggaaa ggggaatatg attattgatg aacttccagc
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                                                                       120
aacttactgt gtggatetge ettgetgece teacttette atetteteae ceegteetea
                                                                       180
ccacttcctt gtcttctttt gqactggctt gtgtttacaa cattggatta gcagttgtaa
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ggtcagcaat gaattcccaa atagcattca gcacctattt tcagcccttc ttaatttttc
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acaagagaag ggtagggcat ggtagacatc aaaactcctg ggacctcgga ggtgatcgag
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cctaacctgg ggccatttta cagataggaa gactgagatg aagacaggag aagggccatg
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ctccaagtaa tctaagtcaa aaagagcaaa atctaagcca gtggacatgc tgaggctatc
                                                                       240
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      <211> 300
      <212> DNA
      <213> Homo sapiens
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ggattctacg gccggcacga atggcatggg agggttctct gcacgggacg gcataacggc
                                                                      180
atgccatcct tcaggctggc aggagcctgc gcaggtgtgg caaaatcttg aaacagcctg
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<210> 2137

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      <213> Homo sapiens
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aqtaqtqttt tcccattcgt attgcttatc ataaaatgag agagtcttct gtccatcatc
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qaaataaaaa qaaccatqag ggccctgcag aattcaactg gaccttgggg attactcact
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gtatttegeg tgecagttgt eteagetaat agatateage agetggeaag gacettgget
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geactgeetg etgeecete atetteactg geacagggee etacaettag teaacaggea
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gccaaaactt actgagtgaa ggaaccaaag gcacaacttg agaactgtct atgtttgtgt
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gggctttctc tgccaaggct gggaaactag agttctggca gctttgttgc tcctttgtct
                                                                       120
tetgtgtgag eegeggtgte ateageeagg teaceeeget tgeageaeag tegetgtget
                                                                       180
ctgggcatcg gtggagcggg gagctctggt tgtgcacaga gggccaggtg tagatgttgt
                                                                       240
                                                                       300
gcacagaagt cagccccacc caggttaggc tgagccgtct tccctgaacc tgaaatggtt
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tacttaaaac aqaaqaaaac cacttctqqq qcagaaaagc tagaactgat atcacagttc
                                                                       120
cctctggtgg ctgctatgtg tcaattcgat ctccttagaa gaaaatagtg tagcctaaaa
                                                                       180
taggtctttc tttaccacag ttagatccct gcagcaatct acttctcgaa acagaataac
                                                                       240
                                                                      300
cattcaacta tqacaqctat cttaaaatca taqactqtaa ataatattgg tcacttctac
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     <211> 279
      <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc feature
     <222> (1) ... (279)
     <223> n = A,T,C or G
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tocagcaatt ctccttcagg cacatttcct ttgctgaaac ctttttagca ggtccctgga
                                                                       180
gcactcatga acaaaataaa aaaaccagaa accctgtaac cctggtttct attaaagtct
agcttggggc ttttttttt tgacaaaggg tcgnaangtc ncccaggctg nagnggagng
                                                                       240
                                                                       279
gngcagneth ggntnantge aanttecace teecaggtt
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2142
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tgctgctqct qctgctgccg ccgccgccgc cgccgtccct gcgtccttcg gtctctgctc
                                                                       120
ccgggacccg ggctccgccg cagccagcca gcatgtcggg gatcaagaag caaaagacgg
                                                                       180
taggetteca ggegeegget teceteeceg ceacegeact geaegegeeg acceecaace
                                                                       240
                                                                       300
cccaattccc cqqcacttqq gtcccaccct ccccgggagg gggcgtcggg aggaggagta
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                                                                        60
aatcatcact gcttttctgt agacatttag ccgcagattt gattcaaaat cctgttagta
                                                                       120
ggtggtgact gaaatagttt agtgggggca gggaacagca agaggtagga ggaaagccat
                                                                       180
tcagtaaatc ccccaaatcc caatgtttgc cctgctcatt tgagcaactg ctcccattgt
                                                                       240
                                                                       300
caggagaagg tcattcctgt atgaatgttt acatcacaaa taaaatgaag cttcagtaga
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      <211> 300
      <212> DNA
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ccctactcct gtccagccag tgtttctcaa agcgtgctga tgagcaatgc aagatgattt
                                                                       120
catgttatag ataagaataa aaaaattgtt ttgtgtttaa ctcaaattag aaaaaggcaa
                                                                       180
caattggtat gtgcgacctg tggttttgca gatgatactg cttaggatgt tggtacttaa
                                                                       240
gaaaaggtca acttttcaaa aatactatta gtgacatgtg gacctagtcc tcctgaagag
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      <211> 300
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cctcaggcga tccacccacc tcagcgtccc aaagtgctgg gattataggc gtgagccacc
                                                                       120
gcacctggcc tatgagtggt cttttaatta ggaacaaatc taatggaaag gagagttgac
                                                                       180
tgaagttggc ccacaggatt gtgagctggg cagtgccttc atgaaggctt gccaccttgg
                                                                       240
gacgccccag tttactgggg tgtcttgcgg agtgcagaag gctttctggc agctgcctgg
                                                                       300
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<210> 2146

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<211> 282
      <212> DNA
      <213> Homo sapiens
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      <221> misc feature
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      <223> n = A,T,C or G
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cttgaggtac aagaaaactt cagggtagac aggaaggagg cgtggtgaaa gtgatgaaag
                                                                     120
gggagagtag aagggtcacc tcnnccccat cnnncacctc tnncntctcn ccccncctcc
                                                                     180
tteenttetn etneanenag nteeenenee tenneaentt entneteece ntaeeeenne
                                                                     240
nentnennne nnnececane naenggeteg ceetenaget te
                                                                     282
      <210> 2147
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2147
gattcatctt cttgttcttt aaaagtcaaa aggctttttg acctttaaat aactcttaca
                                                                     60
totgqtcatc actqttqaaa tqttctacta aattttcaqa gtqqaaaaqt tttaqqctta
                                                                    120
aaactgactg gtaaaaatag aatatttctt tgtattgatt tttcagtata gctgtacagc
                                                                    180
cagttatect tegttaagtg ttteggtatt aaaactgete acatttgtaa atattgagea
                                                                    240
gctttattgt cagaacaaga atcccttggt ttcccaatcc ccaactttta acattgtaat
                                                                    300
      <210> 2148
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2148
gagaacctaa caaatgaatg tggtgggtaa ggaagagaaa gaagtagaga tgaaatttcc
                                                                     60
                                                                    120
actctqactq qqqaaactaq qtaqataqat gatcatqaaq aatctgagga agagcagaag
tegtacaggt aagaatgaat geatteatta atttatteag caaaaetgee tgaagaatae
                                                                    180
catgtgcagc actgcgggac aaaacagggc ttgcattccc aggctgtact cttgtgagga
                                                                    240
caacaagaag gaagtagaga aacacacaag aacaatgcta agatggggaa actccatacg
                                                                    300
      <210> 2149
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2149
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aatctatatt tggtttggaa aatatggtca catagctata ggcattctgc agaaaacatc
                                                                    120
attecttgtt aatagteaaa taacttagga atttaataat aattatacet aactettatt
                                                                    180
gagtacttaa tatgtaccag gcatatagta tataaatata cctatatagt atataaaaat
                                                                    240
aaattgtaaa attttgtaaa atatatataa atttttaatg taaatatatt tatattattt
                                                                    300
     <210> 2150
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      <212> DNA
      <213> Homo sapiens
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<400> 2150
cttggggcca ggatcctgga gtccttgctt ggggataact tcctggagag ctgctcagtc
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agctataccc ttgggagtct tttgttgagg gagaaataaa tgtcattttg caaagccact
                                                                       120
                                                                       180
gatattctgt ggttatcacg gcagtttaga gaggaaggat gggggaaagc tgggttgcgc
                                                                       240
totaggeett gacactteet geetttgtag tgttaggeaa acatggeaac cecagaaaac
tcagctgcct cagttttaag gcatgcaggg tctttgtgag gaccatataa gccacgtgga
                                                                       300
      <210> 2151
      <211> 300
      <212> DNA
      <213> Homo sapiens
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agagaaccta cgctgagaac tcaccaccag aaaaaatatc tgcttttaaa agcacagtgc
                                                                       120
acaatagtac tttttaaaag ctaaaagagc taagtttaaa gttaaagaca cgtatgttct
                                                                       180
ttgacacaga tctcctaaaa gtctgacaaa attagaagta ccagcacata aaaatagatg
                                                                       240
cccaagaatg tttattgaaa aaagctgaaa acccatgact atctcaatag gacaatgaca
                                                                       300
      <210> 2152
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2152
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                                                                        60
gtgaagacaa cgcaaacttc aaatgctcct gatgtaaatg atgcaattgt gaaactattc
                                                                       120
aatgattttg atgttaagga aacctcccat catttagtga tttctcatct agatctacac
                                                                       180
atatqtqatq acattcatqc taaaqaaaaa gagtcaaaca gacgtattac tggaggggca
                                                                       240
atgcaactct cttttacaca gctaactata gattattatc cttatcataa agcaggagat
                                                                       300
      <210> 2153
      <211> 300
      <212> DNA
      <213> Homo sapiens
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ttacaggcgt gagccactgc gcctggccgc caatagtgtt ttaaatggca caaatttgaa
                                                                       120
tgcctccccc ttaagatcag gaaaaaggaa aggatgtctg ctttcaccac ttctgttcaa
                                                                       180
qqttqtaqca qtqaqataaq caaaataaat aaaaggcatc cagattgtaa ctgtgctttt
                                                                       240
ttacagagca ggatttatac caactggttt cacaaataat tttaaaagatt cactactcaa
                                                                       300
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      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2154
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aaggagtggc tcatctttcc tctccctggg gcattttggt gtgggagact acaggggatg
                                                                       120
aggttaaaaa qcttqqtcqq caggtagagg atggggagag aggttagggc cctgggaaag
                                                                       180
gtgagagatc agccagagac aggtttccca gaacagaatg tctggccttt gtggtgagga
                                                                       240
gggactgtgg tatgagccgc agaagcgggc caggggtaaa ccctcctgtg cgtccttcct
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<210> 2155

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<211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2155
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tctatggaat gcaatttaaq gacattaaaa gccttcttct tgggcatgaa atcttaccat
                                                                       120
atacaagctg ggccctgaaa gtttaatttc ctttagtcct atttatgggg cctatgatta
                                                                       180
acctgctgct ctccatcctc ttccctcatc cctqqqccac atqactacca aqtccaaqqa
                                                                       240
tgcctgccac cctcttgcat agtgcccttt cctacaactg ccaccaaact cagctgacag
                                                                       300
      <210> 2156
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2156
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                                                                        60
tetteeetgt eecceaaaac etaceagett aaceeteett tgtgeeatgt caetggtgee
                                                                       120
tgtggctgca cgtaactgga atggaacatg ccttgtttcc cactcagccc cctttaagct
                                                                       180
acatectgaa tteeceaaac cactetteet egtacetgtt etgetgeace caggtgeetg
                                                                       240
cacggacagg gaagcatctt ttctcggtag tgcactgtgc ttcagagact gggtccccct
                                                                       300
      <210> 2157
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      <212> DNA
      <213> Homo sapiens
      <400> 2157
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gatgggaata agccttggct ctgttctcct tgcatactta gcccatggga acccagtttc
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tggcctcacc aggaatgttg ttgtgctttg agctccctgt ggccttgcat gatgcctccg
                                                                       180
ttggtcctta caggaggtga ttggctggcc acctcacttg ctttctcctg tggacccttc
                                                                       240
tttctctgtc cttccttgaa tgctgccttt gtccctcatg attatgctat caacattctt
                                                                       300
      <210> 2158
      <211> 300
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      <213> Homo sapiens
      <400> 2158
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gtcatcattt cgaagccact catttcatcg gaattgggag ggccaccatc ttatagctgg
                                                                       120
gcttgtgaac ctttgacttt tcccagtata tattggacta ttttgatcac tgctatatgc
                                                                       180
ttctagttcc tcaatcagta tctgccacag aggaggccct ctaaattttt tgtggaatta
                                                                       240
cttaatgaaa tgaatgagtg attattcgcc ttcacaggat tgtgtgagac catataaggt
                                                                       300
      <210> 2159
      <211> 300
      <212> DNA
     <213> Homo sapiens
     <400> 2159
gcactagtgt atcttaaagt aagagaatga cttttattca agaaatacac aacaggcaag
                                                                       60
tgccgtatac caggaattgt tcaaggagag caggtagttt gtcttatatt ctaacgtggg
                                                                      120
agaaagaaag caaataaatt acatgaattg attaattgat cagttgcatg gcttttagta
                                                                      180
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tacatttctg tcagtctgcc aaccagcaca ggtcccttat tagcatggga gaagggcctg atcactgaaa gtattataga tttatagagt attgaaagga aacttaagga aattgggggc	240 300
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<210> 2163 <211> 300 <212> DNA <213> Homo sapiens	
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gagagaacta gcctggatga gaggtgactg agaataacaa ctaattttgg tgtctgaaag gctgccatgg caagagaatc tttgttccat gttattctgt aatgcaggaa tgagacaacc tcatagaagc tcttgagtga cagatttcag cacgattcag ggagagcttg attggcaaga atctcagtta cttttgtcat tagtttcaat ctgctgcctt gcaaaacccc tccaaacggg aaataagctc ctcggactga gtttccatta ttctccttta tccagagggc tcgtcggtgg	60 120 180 240 300
<210> 2164 <211> 300 <212> DNA <213> Homo sapiens	

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ccgcggaccc ctcccacccc tgccttgccg gcccctgcac atttaggata tgctcctggg
                                                                        120
tggggactgg gctgtgccca gggcctctgt cccccaggat gtcttgtggt gcgggtcggc
                                                                        180
                                                                        240
cqttctgccc cccagggcac ccctgttgt aggcactggc tagggagggg caggcctcct
                                                                        300
tectgeeet egagacaete ttgggagatg catttteegt etggeteaea gggggagggt
      <210> 2165
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2165
                                                                         60
qcttaaggct acattaagtg gacagacttt atatggattc tctaatttta atcttcaaaa
tgctatctaa tgtctcatta agacttgcat ataatgtatc ttaagtacag tcattaaata
                                                                        120
tagtttaggg agatttatgt tcagatattg cttaaagatg ttttaatagg cccatttact
                                                                        180
ctgatgatat taatgagctc ttaatacaga ctaagcttct aaaactagtg gtaaagactc
                                                                        240
ccagcctgaa cacaacaact tggaattaat gcctggtttg gacagatgcc tgagggtgag
                                                                        300
      <210> 2166
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2166
gagaaaagct ctcaggtaat ctgtatggct tataagggaa acctgcagtc ctttctgaaa
                                                                        60
ggggagctgt gaatatgact gctttgtaga aagatgtctt aggattctgg gtgaaaattt
                                                                        120
ttaattcccc tcatgtagga atgtcacaga gtgtaccttt ttgacttagt attttcctag
                                                                        180
taaaatacac ctttcttaag aaaatggcta caaagtcaga tgcatgtaaa tgctttcagc
                                                                        240
aaqqqtttat tqatcatctq ctttaqqctg ggctctatgt taggtgcctg tggattccat
                                                                        300
      <210> 2167
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc feature
      <222> (1) ... (300)
      <223> n = A, T, C \text{ or } G
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                                                                        60
cctggaqaca qtttcagaaa agggatccct aacatcagaa gagtttgcta agcttgtggg
aatgtctgtc ctcctagcca aagaaaggtt gctgcttgca gagaagatgg gccatctttg
                                                                        120
ccgtgatgac tcagtggaag gcctgcgttt ttacccaaat ttatttatga cacagagcta
                                                                        180
agggttttgt atttaaaatc ctttttgtcc atatgcttgc gtcatgtana ggttgtatga
                                                                        240
cattnnqcta aganattanc cccgatcaat tgagaattta ttggaacttn cngtgcaatg
                                                                       300
      <210> 2168
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2168
atttaatctt ccataagatc tttcctcagt gtcttttact tcttctcctg ccatcagatt
                                                                        60
cttaccttga ttgaaaagcc atgttaagtg caaggcaaat tctttacgtc tttatacaga
                                                                       120
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gattaacaat ctctqqqtqa tgggaqcqtt aaqtqattta gctttqtcac taqtaqatqt
                                                                       180
gtgaggttag aaaagttgct gtcctttttg ggtctcagtc cctcagctct gcaattacag
                                                                       240
                                                                       300
gcagtcttca ttatttggta caaattctat gtaaaattga taacacatat ccagattaaa
      <210> 2169
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2169
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ttcacccata gtgttctgca tttggccagt cctatttcct ctgcgccccc agctgggcga
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tgttaatgtg ctcccagctg tcacatcagg ccactgatag acgccacagt gtgggatgct
                                                                       180
actttcaaat gatatgttct tgtttacaag tcagtttcat agtattatga tgttaagaga
                                                                       240
tttcatttca gaggtagcta agtttgaaca ccagctctgt ctttgaccag ctgtttagga
                                                                       300
      <210> 2170
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2170
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gggccatgag gcagtagagt ccctacaggc caagaaactg agcagaaccc atgcctccag
                                                                       120
ctcaccagct gcattgaagc ccccagctgg cagggagact gctgtgaatg gacagggtga
                                                                       180
gctcatcccc ttgaagaaca ttgagggaga attgtcaagt gctattcaca tgaccaagga
                                                                       240
tgccaccaag gaggetetae atgccaccat ggaceteaec aaggaagetg tgtccctgae
                                                                       300
      <210> 2171
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      <213> Homo sapiens
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gggccatgag gcagtagagt ccctacaggc caagaaactg agcagaaccc atgcctccag
                                                                       120
ctcaccagct gcattgaagc ccccagctgg cagggagact gctgtgaatg gacagggtga
                                                                       180
geteateece ttgaagaaca ttgagggaga attgteaagt getatteaca tgaccaagga
                                                                       240
tgccaccaag gaggetetae atgecaccat ggaceteace aaggaagetg tgtecetgae
                                                                       300
      <210> 2172
      <211> 300
      <212> DNA
      <213> Homo sapiens
      <400> 2172
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gccaagttcc catataacag gtgcagggca tgcttcattt accattgaat ttgatgacag
                                                                       120
taccccaggg aaggtaacta ttagagacca tgtgacaaaq tttacttctg atcagcgcca
                                                                       180
caagtccaag aagtcttctc ctggaactca agacttgctg gggattcaaa caggaatgat
                                                                       240
ggcacccgaa aacaaagttg ctgactggct agcacaaaac aaccctcctc aaatgctatg
                                                                       300
      <210> 2173
      <211> 300
      <212> DNA
      <213> Homo sapiens
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aaggggetet ggggaacage atagttttge tttaattete eagettgtte teagtaaggg
                                                                       120
tggaaggaga aagagaggaa gtatcgattt tacagacgtc acatcgtact gctaagaaca
                                                                       180
                                                                       240
gacagaaaac ttgttgtaat aacccgtaca cactgtagga gaactaagga ggcccctggt
gtagcaatca ttttcccaag gatgacggat tgtgaggcag gaaggtgtga aaagaggcag
                                                                       300
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atcttagtct catggagtta gccatgatca ttttaaactt ataattatta aagtgctatg
                                                                       180
atqtacaaag gtqcttatga aactaaaatt tgaggaatta gatacaatga ctatgcggtt
                                                                       240
                                                                       300
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gtagctgctc aaaatctaca gactactggc ttaaaacctt ggtaagtgcc cagggtgtag
                                                                       180
                                                                       240
tgaaagttct caataaacgc cggctggtgg cgctgctgct actataagca acgttaggag
agectgggte ggetgacace tgcaatagaa acctgtacge aacaagttgg atgtcacate
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gttaaaaatg gtgtaattat gaaaatctaa cactcaagat agtttctaaa aggaaatcag
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tagttaagga tacctgattt caaaatattt aaagcataac ctaactgatg gtaggatgat
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gaccetteca gageageagt ggacagatga gataagaetg tttcagaaac aaagatggee
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acageettee taacaageag gteatetgge catgtetgta ttgtaactgg taaaaggett
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acattaatct ttagaatgcc tgtattttct aatgttggga tttctttcac aaccacccac
                                                                       240
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aggaatettt caatetgett tetaattgge ttagttttee caetgtette geaaaaggae
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aggaatttcc aggttagttt gcagcttgtc tttcatcaag cgaaatgctc atgctgttgg
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gccatcaagc gggagattga tgtgaccaag gaggccctga atttccagaa gtcactacgg
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gagaagcaag gcaagtacga aaacaagggg ctgatgatca tcgatgagga agaattcctg
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ctgatcctca agctcaaaga cctcaagaag cagtaccgca gcgagtacca ggacctgcgt
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gacageggtg ceagteagtg ttgccatgga gtccagtaaa gaagacatag agagagetgg
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tggctcatgg catcccaaaa taaagggaga atttatgact tqctcaaatg atgcgactqt
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495

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tagttacagc aaagaaatga gtaggagacg gagggaatgg ccagcagcca ttgaagaggg
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agagcagget gggeccaagg gggacccagt attggcagaa aggaaagete agggtgtcaa
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gtgggcctga gaagggatca tctggctgaa caagagaggt ccacatgtag ctctcagcac
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tctagcacca gctcctggag aaaaatcgag aggctgaatg gtgtctgtta acagattata
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gtcagtgagg cctctttcct cagatgttgt atcttatcaa tggcagacat tttcaacctg
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tetgetttet accetette agecegettt agetegeaaa acagtegeg aaatettage
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etteacatea eegtaeeaea tagaeeaaaa tgagagetaa tateeaggat gagaatgaae
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agctetteta ateaggetgt cataaaaata aggaagetta ttttatagaa geetttacca
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cccactcagg aaccgcttaa ggcttcttgt agtacaaaca tcaataatca ggaaagtcag
                                                                       180
gaactttctg aatccctgaa agatagtgcc accagcaaaa cttttgaaaa gaatgttgta
                                                                       240
cggcagaata aagaaagcat attggaaaag ttctcagtac gaanagaaat cattaatttg
                                                                       300
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      <212> DNA
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actttctgaa aaccacagtc ccaccacagc acagaagcca gtggggtgac acgaggagca
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cgaggettta acgteageeg ageetggeaa agaaagtgte atattatggg getttaggat
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tctcttcggc agaatcggaa gcagcaggct ggcatttgtg catgagctaa gtgaggacaa
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ggagtetagg ttttcagcca ctgcacacag gctctgtggc ctgcgaccgg tcctatcctg
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tetgecagga geceacagee agtgaeteae aaggetagag etgtgeatgg gggetgtgtg
                                                                       180
caccaccegg cetgtgeece ageteteece gagggetetg tgeeetggac egeaceteaa
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ggttgaccag ccggccacag gcctcagagc tcagctgggc cccacttgct ggccacaagg
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                                                                       120
aggacetggg geettgeage agagettgtg getgeggtgg ceattttaga tgatgteatt
                                                                       180
cagetecetg gecatgeest getteecace caceteacat tggtggetge tetttttet
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      <213> Homo sapiens
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totgaaaggo cagcatttgg coagtattat ttgaatotgt attgtatttt ttaaccagaa
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gaatgaaggt ttatagcttc attettttgg aagaggaggc tggagaccac aggttaaatg
                                                                       180
caggigeate getetiggee ggeeetggaa gggteettie teeeteetti tacaetegea
                                                                       240
gacaagcttg tggatgctca ataaggacag ctgccgtttg gacagagatt aatcatttat
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ccctgtaacc ataactgtgg atcccttact tcagcaactc aagtctgcta ccctaaccac
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aagattcaag attatccaca ccccagccct taatccccat cccccaaatc actggatcct
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gcagccccac atcctaaggt ggatcccacg cttccctgtg ccccctactg gatcctqqac
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gattgacagt gagatttcaa atgggttaaa gattgctctg caaagaggtt aactgttgag
                                                                       120
attgatacag getatettea acatatgtae attgetgtat atgaeattta cetaccattg
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tgcatctggg acttcctgat ggaccacagg aattcccttt tcttcccatt ctcttccaqa
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totttottot acttqaaacc cottatotac aaaaatqaat aaacaaccca atctcatttc
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ggagacgaag gttgcagtga cccgagatcg taccactgca ctccatcctg agtgacagag
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cgaaactcca tcttggggga ggaaaaaaaa gaaagtaata gggaggcaaa tcagaatttg
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tgtgggagta ccccctagtt ctggctcttg ttagtatact caacctgtca ggctattctq
                                                                       240
agagegaaag eteetgettt gggetagttt eeatteagaa tggtttttga taggtatqaa
                                                                       300
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      <213> Homo sapiens
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                                                                       120
gaagttgaat ttgatgaagt ggtcatctat ccaagtattt ggcttttgtt ttgttttgat
                                                                       180
ttgtttttgg agttggagtc tcgccctgtc acacaggctg gagtgcagcg gtgcaatctt
                                                                       240
ggctcactgc aacctccgtc acctgggctg gagcaattcc cctgcctcag cctnccaagt
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      <212> DNA
      <213> Homo sapiens
      <400> 2200
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tcaqtatatg cctgggactc tggctttatt ttttagcttt gtgatgccaa acccatcaat
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      <212> DNA
      <213> Homo sapiens
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gatccaatat ggagatacag aaaagggcac ggagcttggc aaagagaggt gattgacttt
                                                                       180
tgaagaacag aagccaggct aggatgggcg aagcatgaat gaatggatga tgaggagcag
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ggcccaccct gggctaaatt gcaaagcagt gcatgtggag gccccctttt cccttgtggc
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gctaacggta agagatagat agacagatag gcaatgaagt gttcacttaa ttaccttggt
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ttttagttta ctaattatta cattcatcgt ttttgtgatc acaaaaacac aaagaaggag
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atggatgcat gtagaccttt taagaacagt taatgaagtt taatctgctt atgtggagga
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gtctattagg acatttctgt gacactgcct ggcgtctgca acctgctacg ttgctcactg
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                                                                       300
      <210> 2204
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      <212> DNA
      <213> Homo sapiens
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ctttcccagt aagcatcagt tcagaaacaa atttaagtaa agaaatggaa tctgtaatga
                                                                       120
aagatataaa aaataccact cagaagaaat atagagacta tagcaagacc ccgggctcac
                                                                       180
cagacaatga ttttctcttt atgtactctg ttgctagaac caatttagaa cttgaattga
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ttcatcgagg aggcaatttg tgttcaggtg gtgcaagcac agctggcaaa aggtcttgtt
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      <212> DNA
      <213> Homo sapiens
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                                                                       120
                                                                       180
ataggattqq qaaaactqqq qaqagqccct ctcaaqagaa cggaattcag aaacacagga
categetgee ggeteecatg tteageagaa gegaetteag egtgtggaee ateetgaaga
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                                                                       300
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acatqtcaaa tqcaaqactq tqtqctctta atqacatcta tattaaggqa tctgaatttt
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ccatcataaa tgaacatggt agcttaccaa atatcttctg ataagtcatt cagtgctcag
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qttctatqtt ttttctcctq taqaaqaqtq aaqaaactac acatcaccaa aatattgtaa
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ggctaagtaa taataacggt gactgggaaa atgggaaatg agatagcgtc aaacgtttgt
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      <213> Homo sapiens
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ttagacttcc tgggttattt cccaatccag actcatgttc tgtttcatga gtgcccattg
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cacccatgca cttattgagg tgtgtttgaa agcagaattt aaaaatttga tctcagttat
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aattgaaata gatttactqq aaaqtcttac acagttagtt actaagcggt ttgtttgttt
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tgtttcgaga cggagtcttg ctctgtcgcc ctggctggag tgcagtggtg ggatctctgc
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tggcataact ccctttaggt gcaagtgttc aggccaaaat gttcctgagg cattttgatt
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cctcctcctg ctqcccatct ataccaaqcc cagaaactqt ctqqaatata ttttaqtttc
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aaggagttga teetgetgtt etggaaagte gtggatetgg ceaacaagaa ggtgggacag
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ttgcacgaag tgctagttag accggatcag ttggaactga cggaggactg caaagaagaa
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ccagttcact cacaggagtt catattctga tggaggagac agaaaataag ctatagcata
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tctgtgcttt gtgaatttgt cattgctgcc tattcccgtt gccttttttt tacatctgta
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caagettgea gattetgtee etgttetgae egggggteae ageetagtgg tagaacagga
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cctcctgcta agatgctgga aggacccttt gggggagctg aggcctggct cccctctccc
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caggogcagg tgcacaggcg tgtgggctgt ctgcaagcac agatectgcc tcacagcace
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     <213> Homo sapiens
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aggctaaaag ttcttaggag aatgtttgcc tttgcatgta tatgctggcg atgctaataa
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ttactaaaag gtgggtgtat ttcctagaat agcattttct gttgagtaga gatgattttc
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      <213> Homo sapiens
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cagcacttct acatgatect atgactettg atatggacge agtectgtca gaetttgtte
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      <213> Homo sapiens
      <400> 2216
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tgtctaaaac aggagcctgt tagctacagt tgccaaaccg gtttaacagc actgcctcca
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tgactagaaa aggatccatt ttgaaaaacc aggaagacac ttttgctgca gagctgcacc
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gtotcaagca gcagocacto ttoagottgg tggactttga acaggtggtg gatcgcatto
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cagattgtca taagaagctc aggcagctct ccccctctgt tgcctggggc ttttcgcagt
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tacaataaaa gtggaaagat gaagaataag ggcaagcaga agacacacac atttgcctgt
ttccctcttt ttgtccagat tgagtagatg ggaggcaggg ctgttaccca tgatggtgtt
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                                                                     180
ctqtccagat gtttgagaat caaaatgtga acctgactag aaaaggatcc attttgaaaa
                                                                     240
accaggaaga cacttttget geagagetge accgteteaa geageageea etetteaget
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tggtggactt tgaacaggtg gtggatcgca ttcgcagcac tgtggctgag catctctgga
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qcacqqacct tgctccagca ccggccctgc tcagccagat tttcagaacg agagggatat
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                                                                     180
tottatotgt ggcaaagaat attototata ttotgtatac atcatttgag acttaaatgg
gtttcaacag atccattctt tttgtagatg taggaaagtt tgacatatga ttgttctttg
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ccaaatagcc acgttcgcgg gattcctttt gatggaaatt atttattagg acttaaaaaa
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      <210> 2221
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     <213> Homo sapiens
     <400> 2221
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gcatggacca ccagtggttg ttgaggtggt gaagtgtgte cccgttaact ccactctggg
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cagtgaactg aagagggagc aaagcccagg aaatgggcct tcgtggcagt ggtggaggta
gagtgaccca cagcaaacct ccccacttgt ccctgaccat tcagtagttc cagaggcagt
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gattgtgtct ctgtctttcc ctctgtcagt gcagccagct tattaaggcc ctaggtgagc
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teccagettt cattgttate aetgaetaaa accettgeet gttgatattt getgagtgtg
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qaaqaattta agctaatgag gaaggagttc accaaatttt acaaggtcta aaaacagtta
                                                                    240
                                                                    300
qaatataaac aagtgatccc aaggaaggaa caggatatgg tttattcagc tagtctcaaa
     <210> 2223
     <211> 300
     <212> DNA
      <213> Homo sapiens
      <400> 2223
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ctggctgtct gcagatacta aagaagagcg ggatctctgg atgcaaaaac tcaatcaagt
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tettggtgat attegeetet ggeaacetga tgettgetae aaacetattg gaaageetta
aaccgggaaa tttccatgct atctagaggt ttttgatgtc atcttaagaa acacacttaa
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<210> 2224

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caccattctq cctqctaqat cqqqqccaqa tqaqatqaaa gtcaacgctt gagaaagaaa
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accaacatgc attaactgaa acaccgtctt cacttgttca tccacagggt atagagcgag
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taaqccaqqa atcaqqaaqq aactqcaqat ttcttagaaa gttgtagtgc tctatgaggg
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cacttagcca gttgttttga ccgactaggc agataatcac actgagctga tacaatcgtg
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gtgctaaagt atcataatta ttaaaatatt agtcctatgt gttctcaaca catgtaaagg
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aagagtgacc agattgatct taatcagaaa tgtccagtta catgtcggcc gacagcattq
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      <212> DNA
      <213> Homo sapiens
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taagetgaaa aqtgaegtqq ttqaatttet gattteagaa agateaetga tgtgatgaga
                                                                       180
atgaataact ctctggagtg ctaggatgtg ggggcaggga gctagcttag tatattattg
                                                                       240
caaaatcttg ccaaagatga gctgatcaaa tgagaggaag catgaactaa gaggggagca
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cttatttaaa aaccttcact tggttaactt tagaaactca agaattataa actcaaattt
                                                                       120
atacttettq atacacaaac ttaagaacta aagetatett etgactette tatttgaaaa
                                                                       180
ggtactaaca cttctttccg tcagtctctc attcttcatt tttgttggta tcctgtggaa
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tttttgtcta gtctagtaaa attaaattat tatcacttta atgttttgta gctctttttt
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agaactgatg ttgaaaatga tgtctactct ggaggcagat tccattttac aggcattaac
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aaatacatct cctacattat cacagtctcc cactggaaca gatgattcac ttctaggggg
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tttacaaqca qcaaaccaaa ccaqccaqct tattatacag ttatcatctg tcccaatgtt
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      <212> DNA
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caqqqtcaca caqcaqqqac tcaggaaaaa gaacaagatg agctgagtgc tatggtgtgc
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aggegeaegg eteagteeae aggateeegt getgeeeeag gtgeteteae eteettagge
                                                                       180
ctgcctgggt catgggtggg gtggtcaata agatctttcc ttggctccag tctctgcctc
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cagoctectt gactagecea cetgettace tttgggtgga teccagaaac etaeggtete
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aqtctatagc atggtqataa aaacaggcct caccctcttt ctctacccac acaggagcat
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ctcagcttga cttcagggat ccaggagcca ccagccaccc tgtaaacagc ccagattaat
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cctgggtttc agtgtcatgg gaggaaggaa ggatgaccta gtaaagagca acttacttac
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gacagaagtt totattattg ttaaatttga actgtatcta tgttataata gtaatggtaa
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ctcaatccaa aggacctaat aacaggaagt aacatgtctt acatatcagt ttatatttgt
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ccagtagagt ttgcagctgc atggagagat gaagcaaaac tctgaacatt caactgcatt
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aaaaaaaaat catgccaaga gggcctttga gcaagaaatt cttgcagatt tatgacaccc
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                                                                       240
gatgcctgaa ctctgtgtgt gacatcaggg ttatggctct gtaagctctt aaccctgcag
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gttggaataa attatagtta tttgttcaaa gagttataat tttatgcatt ccttacacca
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gggtggttga agtcattaaa gtcagagagc caaaaatacc taacagagtg gagcgaaaaa
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agageeggae agaacagtga gaataatata teaetgatgt aaaaacaact catatgatge
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ttgtaaatgt ggaaactata actatccctg gaggggtata gagatgagtt caattaggag
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gccagcgcac ggtcagggag gcatgggtgg ccagccgca aggagccagg cctcccagca
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ccccttccct tgtgtggcct cctcccacat gggatctcag ccggtcctgg cttcaactaa
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ggaaggatgt gtccagaccg cctcatgcca ggaaaactgg gggcagctcc cccgagacca
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